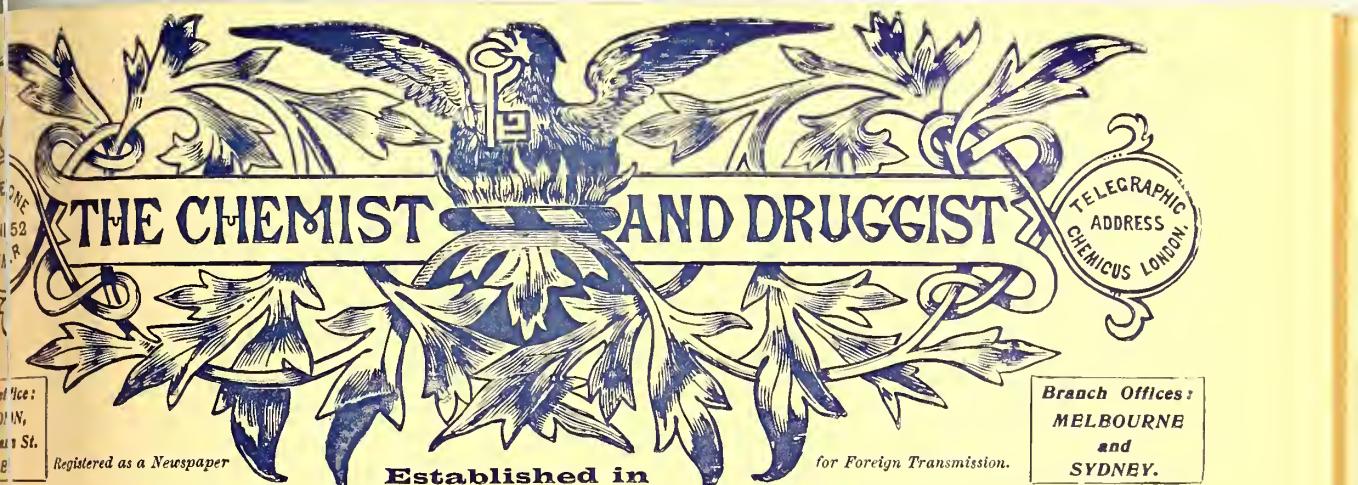






Digitized by the Internet Archive  
in 2014

<https://archive.org/details/b19974760M0967>



Registered as a Newspaper

Established in

for Foreign Transmission.



Branch Offices:  
MELBOURNE  
and  
SYDNEY.

ENGLAND - 1859.

AUSTRALASIA - 1885.

No. 904. VOL. LI.

AUGUST 14, 1897.

{ Subscription, 10s. per annum, including Diary, Post  
Free the World over. Single Copies, 4d. each;  
Winter and Summer Issues 1s. each, Post Free.



UNDER EMINENT SCIENTIFIC CONTROL.

# “APENTA”

THE BEST NATURAL APERIENT WATER

**TRADE PRICES, per Case:**

25 Large Bottles, 20/-; 50 Small Bottles, 3½/6; 100 Quarter Bottles, 32/6 { Carriage paid to any Railway Station in the United Kingdom.

5 per cent. Discount upon Orders for 10 Cases

**TERMS:**—Six Months' Credit from date of Invoice, Net Cash.

The retail prices printed on the labels are 1/3 per large bottle, 1/- per small bottle, and 6d. per quarter bottle.

THE APOLLINARIS COMPANY, LIMITED, 4 STRATFORD PLACE, OXFORD STREET, LONDON, W.



## CHEMISTS' EXHIBITION,

COVENT GARDEN, AUGUST 16th to the 20th.

**OPEN DAILY from 1 p.m. to 10 p.m.**

ALLEN & HANBURY'S desire to call attention to their Exhibit of Specialities, put up for Chemists to adopt as their own, on Stand No. 1, adjoining Main Entrance.

## High-class Milled Toilet Soaps

Will be a special feature of their exhibit. These Soaps are equal to any manufactured, and are commanding ready sales wherever introduced.

**Samples and full particulars at the Stand or by post.**

Allen & Hanbury's Ltd., Bethnal Green, London, E.

# MAY & BAKER, LIMITED



Telegraphic Address—“BISMUTH LONDON.”  
A B C Code Used.

ESTABLISHED  
OVER 60 YEARS.

Telephone  
No. “8, ATTERSE

# CAMPHOR

**M. & B. TRANSPARENT TABLET**  
(SUBLIMED, NOT COMPRESSED).

**MERCURIALS. ETHERS. BISMUTH SALTS.**

**PURE FRUIT ESSENCES.**

**PHOTOGRAPHIC CHEMICALS.**

**PERCHLORIDE OF IRON, NITRIC ACID, &**

Specially Prepared for **PROCESS WORK**.

**CYANIDE OF POTASSIUM** (JOHNSON'S  
QUALITY)

**NICKEL SALTS, ACIDS, AND ALL PLATING CHEMICALS**

**GARDEN WHARF, CHURCH ROAD**

**STEAMBOAT PIER,  
ATTERSEA SQUARE.**

**BATTERSEA, S.W.**

NEAREST STATION,  
OLD BATTERSEA STATION  
West London Electric Railway



# THE CHEMIST & DRUGGIST & SUPPLEMENT.

SATURDAY, AUGUST 14, 1897.

Businesses for Disposal  
Businesses Wanted  
Premises to Let  
Auction Sales

**ALSO EXCHANGE COLUMN.**  
For Bargains see last page of this Supplement.

Partnerships  
Situations Vacant  
Situations Wanted  
Miscellaneous

A Copy of this Supplement is inserted in every number issued of "The Chemist and Druggist."

THE CIRCULATION OF THE SUPPLEMENT THIS WEEK EXCEEDS 14,000.

## CHEMISTS' TRANSFERS.

MESSRS. ORRIDGE & CO., 32 LUDGATE HILL, E.C.

May be consulted at their Offices on matters of SALE, PURCHASE, and VALUATION.

WILLORS we advantage of Messrs. O. & Co.'s direct attention and advice as to value without additional charge.

CHASMS are invited to forward a statement of their requirements, which will be notified in a register free of charge.

VALUATIONS having always been a prominent feature, Messrs. O. & Co. trust that the lengthened period during which they have enjoyed the

confidence of the profession will be regarded as a sufficient proof of the sincerity of their endeavours to conduct these transactions in an honourable

and straightforward manner.

£3,000.—WEST END.—Brisk Retail and Dispensing Business;

situate in a very thoroughfare; returns last year over £3,000, with good

stock; the shop is nicely fitted and well stocked; commodious house, held

by lease; price £500 and valuation.

£950.—LONDON, W.—Dispensing and Retail Business; returns

over £1,000; shop well fitted and stocked; large house, 21 years' lease; price

£1,000.

LONDON W.C.—Brisk Retail Business, chiefly ready

for return; present rate £1,000; net profit £300; attractive shop,

situate in a very thoroughfare; price £700, or near offer.

£600.—LONDON ROAD (LONDON).—Retail and Pre-

scribing Business; returns under manager £600; single-fronted shop, well

stocked; comfortable house; price £500.

£1,000.—LONDON SUBURB (South).—Good-class Business,

situate in a very busy thoroughfare; handsomely-fitted shop, and large

house, held on lease; price £1,000; good house and

valued about £850.

£1,200.—LONDON N.—Good-class Dispensing and Retail Busi-

ness; returns per annum £1,200 per annum; the shop is handsomely fitted

modern house, held on lease; price about £875.

£600.—LONDON (Main Road).—Prescribing and Retail Busi-

ness; situate in a very busy main road; returns £600; nicely-fitted shop, and good

stock, valuation of stock and fixtures.

Particulars of any of the above

**N.B.—NO CHARGE**

FOR VALUATION ON APPLICATION. APPOINTMENTS BY POST OR WIRE HAVE IMMEDIATE ATTENTION.

TERMS OR ORDERS & CO. invite communications from COLONIAL and FOREIGN firms where business of a confidential nature requires the especial

attention of a London Agent.

**NOTICE.**—Messrs. ORRIDGE & CO. have a large number of Businesses for Sale

suitable for Gentlemen with Small Capital, from £200 to £500.

ORRIDGE & CO., 32 LUDGATE HILL, LONDON, E.C.

## APPRENTICESHIPS.

ANTED some ex-  
apprentice a youth; indoors; passed Preliminary (had  
experience). Rimmington, 9 Bridge Street, Bradford.

YOUNG Ge-  
nary or  
ond Road  
man, as Apprentice; one who has passed the Prelimi-  
nary or its equivalent; comfortable home. Coles, 94  
ngston-on-Thames.

YOUNG Ge-  
nary or  
ond Road  
entice. Wanted, at once, a well educated youth; must  
have passed Preliminary or its equivalent. Apply, T. Judson &  
Market Place, Ripon; established 1812.

ALLASES.—A  
educated  
in my or  
assistance  
under  
Wallase  
VILLAGE. Wanted, immediately, gentlemanly, well-  
brought up as Apprentice; one preferred who has passed the  
equivalent; healthy part, Cheshire, near sea; good home;  
with studies; time allowed for recreation and study;  
ster's charge; premium moderate. Apply, Rogers,  
Village, Cheshire.

APPRENTICE wanted in a good Light Country business; moderate  
district; home comfort, and under personal super-  
visor; exceptional opportunity for thoroughly learning  
the business; time allowed for study and recreation. "Dispensing  
Office of THE CHEMIST AND DRUGGIST," 42 Cannon

## BUSINESSES WANTED.

3s. 6d. for 50 words or less; 6d. for every 10 words beyond.

**WANTED**, medium-class Retail Business, returning from £500 to  
£1,000, situate in Devon; must bear full investigation. Particulars  
to R. T. R., 7 Palace Avenue, Paignton.

**WANTED** in a river or seaside town (former preferred), on or south  
of the Thames (no Stores in town), a Retail and Dispensing  
Business making £300 a year net; cash down for suitable concern. Full  
particulars to "Flex" (217/6), Office of THE CHEMIST AND DRUGGIST,  
42 Cannon Street, E.C.

**WANTED**, immediately, a reliable Retail and Dispensing Business,  
returning from £800 upwards; I will pay a fair price, cash down,  
for one that will bear investigation; locality no object, but must have a  
fair house. Send full particulars, in confidence, to "Chemist," 129 Rich-  
mond Terrace, Glenay Road, Barking, Essex.

**WANTED** to purchase, for ready money, a genuine Retail, Dispensing,  
and Prescribing Business (London or country), returning £800 to  
£1,200, or smaller if can be increased; locality not so much studied as the  
bona-fide nature of the business; what offers? T. D. W. (223/7), Office of  
THE CHEMIST AND DRUGGIST, 42 Cannon Street.

# F. J. BRETT

VALUER,

37 Waterloo Street, LEICESTER.

References to Principal London and Provincial Wholesale Houses, also to numerous clients throughout the United Kingdom.

BUSINESSES THOROUGHLY INVESTIGATED FOR BUYERS.

NO CHARGE TO BUYERS.

£1,600 returns.—**SOUTH WALES.**—General Retail, with good agricultural connection, in large and growing town; vendor, who is retiring from the trade, will give ample introduction; to an energetic man there is ample scope for increase; valuation about £900.

£700 returns.—**DERBYSHIRE.**—Retail, Prescribing, &c., in very central position; returns can be largely increased by suitable man; valuation about £450.

£800 returns.—**LONDON, N.E.**—Unopposed suburban Retail, with exceptionally large sales of own preparations; net profit over £250; price about £800.

£900 returns.—**BEDS.**—Thoroughly sound, good-class country Retail; well removed from Stores and "cutters"; exceptionally good house; two large gardens (can be let for £12 year); short hours and no Sunday duty; net profit nearly £300; lease; price about £750.

£600 returns.—**BERKS.**—Light Retail, in rapidly-growing town; good house, garden, &c.; also appointment yielding a net income of £100 per annum; price about £650.

£1,500 returns.—**STAFFS.**—General Retail and Local Wholesale, in the Potteries; vendor will give thorough introduction; stock and fixtures about £800.

£1,300 returns.—**LINCOLNSHIRE.**—Light Retail, Prescribing, and Dispensing, in principal street of large town; shop is large, and well fitted; price £850.

£1,000 returns.—**S. WALES.**—Very good Light Retail, practically unopposed; prices good; giving a net profit of £400 per annum; good house; on lease; price £850.

£1,100 returns.—**MIDLANDS.**—Light Retail, Prescribing, Dispensing, and own Specialities; in growing market town; price £850.

£500 returns.—**LANCASHIRE.**—General Mixed Retail and Prescribing; rent low; price £150.

£800 returns.—**NOTTINGHAM.**—General Mixed Retail, in good position for doing paints, oils, and colours; now worked as a branch; has done double with personal attention, and can again with the right man; valuation about £500.

£700 returns.—**MIDLANDS.**—Very nice Retail, in good market town; large house; good garden; lawn and glasshouse; short hours; price £550.

# BERDOE & CO.

CHEMISTS' TRANSFER AGENTS AND VALUERS,

35 JEWRY STREET, FENCHURCH STREET, E.C.

Established 1870.

1.—**SOUTHPORT.**—Good-class Retail and Dispensing Business; returns £670; can be increased; elegantly-fitted pharmacy; well stocked; goodwill £50, and valuation of stock and fixtures.

2.—**DUNDEE.**—Branch for Disposal; returns £600 yearly; under management; rent £35; stock and fixtures worth £300; excellent position; price £200 to effect speedy sale.

3.—**TUNBRIDGE WELLS** (near).—Good-class Light Retail, Dispensing, and Prescribing Business; returns £500; net profit £200; low rent; good house; shop well fitted and stocked; price £400.

4.—**HOME COUNTY.**—Mixed Business; returns £1,500; net profit £450; low rent; good house; price £900; or valuation terms can be arranged.

5.—**SOUTH WALES.**—Population 30,000; only 6 Chemists; Retail, Dispensing, and Prescribing trade; returns £600; net profit £240; double-fronted corner; good house; price £500.

6.—**HOME COUNTY.**—Family, Retail, Dispensing, and Prescribing Business, in market town; returns £850, net profit £300; good house, large garden; stock and fixtures worth £600; price £700.

7.—**NORFOLK (Market Town, Agricultural Centre).**—Good-class Business; returns £1,200; scope for increase, being under management; price £850; valuation terms arranged.

8.—**LONDON, W.**—First-class Retail and Dispensing Business; returns £1,250; net profit £400; low rent; good house; same hands many years; shop is well fitted and stocked; price £900.

9.—**LONDON (Eastern Suburb).**—Good-class Retail, Dispensing, and Prescribing Business; returns £1,000; net profit £400; rent £40, on lease, good house; owner retiring; price £850.

10.—**LONDON, N.**—Suburb, main road, Retail and Prescribing Business; excellent corner position; returns £6 to £7 weekly, can be doubled at once; stock and fixtures worth £200; price £225.

Particulars of either of the above free on application.

We have at the present time a number of really good Businesses on our books. Purchasers are invited to send their requirements, and particulars will be forwarded. VALUATIONS personally conducted.

NO CHARGE TO PURCHASERS.

35 JEWRY ST., FENCHURCH ST., CITY.

# JUDD & MANNERS

CHEMISTS' VALUERS,

Transfer Agents, Partnership Negotiators,  
Arbitrators and Accountants,

76 CANNON STREET, LONDON, E.C.

**SOUTH COAST.**—Good-class Retail and Dispensing trade; returns £650; capital premises, in good position; price £450; pie of pushing man.

**NORTH OF ENGLAND.**—Mixed Country trade; returns £1,000; net profit £364; price £800, to include valuable inventory and long list of customers.

**BERKSHIRE.**—Light Retail and Dispensing trade, busy town near the banks of the Thames; returns £750; price £700; with prompt attention.

**ESSEX.**—An unopposed Retail and Prescribing trade; returns £500; as a Branch under the management of an Assistant; returns £520, £360; a bargain.

**LONDON, N. (Main Road).**—Retail and Prescribing trade; returns £500; should easily do double; rent £45, on long lease; splendid premises; price £350; a good chance for a pushing man.

## WANTED TO PURCHASE

A CLIENT of ours is desirous of purchasing a few good Proprietary Articles which by liberal advertisement may be brought into great demand.

VALUATIONS made for Probate or Transfer of a fully qualified member of the Firm. Books Audit, Balance Sheets Prepared and Chartered Accountants Certificate given.

# FERGUSON & OSBORNE

PHARMACEUTICAL CHEMISTS

CHEMISTS' VALUERS AND TRANSFER AGENTS.

25 YEARS' PRACTICAL EXPERIENCE

NO CHARGE TO PURCHASERS.

All VALUATIONS and STOCKTAKINGS are conducted personally by the Principals. Terms on application.

1.—**WEST OF ENGLAND (Seaside).**—Well fitted shop, residence and valuable Dental connection; returns £1,000; net profit £500.

2.—**MARKET TOWN (near London).**—Retail and Dispensing trade; superior premises, with garden; net profit £250; price £650.

3.—**LONDON, S.W.** Family, Retail, and Dispensing; returns £500; price £200.

4.—**SEAPORT (South).**—Light Retail and Prescribing trade; returns £250; price £500.

5.—**SCOTLAND.**—Smart Retail; returns £400; price £150.

6.—**DORSET.**—Returns £500; price £400.

7.—**SCOTLAND.**—Returns £500; price £400.

8.—**LONDON SUBURB.**—Returns £500; price £200.

9.—**CHEAPSIDE, LONDON E.C.**—Returns £500; price £200.

(Next Door to Bow Church.)

# THOMAS TOMLINSON & SON,

M.P.S.,

Chemists' Transfer Agents and Valuers,

9 NEW CANNON STREET, MANCHESTER.

44 YEARS' EXPERIENCE.

Valuations Conducted with careful attention to detail.

**BUSINESS WANTED.**—Thomas Tomlinson & Son, having on their books an extensive list of gentlemen who have entrusted them with commissions to look up a good genuine Business, intending to sell the same upon being at once with all despatch put into communication with bona fide buyers without publicity and the annoyance of answering numerous applications. No charge made unless sale is effected.

**BUSINESSES FOR DISPOSAL** of various classes and amounts of returns ranging from £200 to £4,000. Particulars given to bona-fide applicants stating outline of requirements.

Have constant inquiries for REGISTERED ASSISTANTS.

Applicants introduced free.

NO CHARGE TO PURCHASER.

Telegraphic Address—"TOMTOM."

## BUSINESSES FOR DISPOSAL

3s. 6d. for 50 words or less; 6d. for every 10 words beyond.

BIRMINGHAM SUBURB.—Well-established General, Retail, and Whiting, with Photographics and Spectacles; corner shop; rent, £100 per annum; offers wanted. "Stet," 60 Endicott Road, Birmingham.

BIRMINGHAM.—A progressive Drug and Drysalter Business to be given up; goodwill £50; fixtures about £70; stock and arrangements can be made as to payments. 202/8, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

BOLTON.—On Sale, old-established Business, Wholesale and Retail; a pusher; man; roomy premises; healthy situation; particulars, with stamp reply, C. 47 Bridgeman Place, Bolton.

BREMOUTH (Near).—Good class Light Retail and Dispensing Business; capital position; rapidly-increasing locality; returns profitable; low rent; good house, with bath-room; shop is well stocked; price £375 or offer; worth attention on of cash buyers. 223/8, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

BRIXTON.—For Disposal, an old and well-established high-class Dispensing and Family Business at Clifton; highly respectable concern might be greatly extended by a smart man of business hand at once; stock, trade, and other fixtures and fittings and trade at a valuation; the proprietor is owner of a valuable chould be made the subject of a separate arrangement; rent to Mr. John Coombs, the Mart, Bridgwater.

CHESTER.—First-class Light Retail and Dispensing Business, under management, and producing a net profit of nearly £400 yearly; options dispensed yearly; low rent; large, handsome, well-furnished shop; price £900. "Bromide" (223/6), Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

CHESHIRE (Seaside).—Small Business, in commanding situation of a principal street, for Disposal at valuation (about £600); cash only dealt with, and applications must be accompanied with other satisfactory reference; splendid opportunity for opening a branch, or anyone with knowledge of up-to-date trading. 3s. 6d. for 50 words or less; 6d. for every 10 words beyond.

LIVERPOOL.—Death Vacancy.—Owing to the death of the late Mr. Woodcock, of Liverpool, his four Chemist's Businesses are now for immediate Disposal; inspection invited. All particulars to "Morphine," c/o Evans, Sons &amp; Co., 56 Hanover Street, Liverpool.

CROYDON.—An old-established Dispensing and Retail Business in a busy suburb; small Patent account; present takings £700 per week; very good profits; vendor wishes to leave London for the soon as possible, and is open to a fair offer; an introduction; good scope for increase. Apply, first by letter, to C. &amp; J. Messrs. Wright, Layman &amp; Umney, Southwark Street.

CROYDON, N.W.—An old-established good-class Business; returns £700; net profit £275; full prices except Patents £1.; price "Fax" (223/37), Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

CROYDON, S.E.—Main thoroughfare; large well-fitted shop; good stock; ample scope for increase; good opening for Dentistry; strict investigation; disposal through ill-health. Address, 19/21, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

CROYDON.—In crowded main road, with electric light, trams, and buses, a fitted Cash Retail, on easy terms, a bargain, owing to other premises; present hands nearly 20 years; commodious house, private endid opening for Dentistry and Cash Store trade. Address, "Hodgkinsons &amp; Co., 101 Whitecross Street, E.C.

EDDINGTON.—For Disposal, genuine Mixed Retail and Prescribing Drug Business in good populous neighbourhood; satisfactory reasons for required £160 or valuation; takings profitable; rent £28; for qualified man. Apply, "Swift" (220/19), Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

EDDINGTON.—For immediate Sale, an old-established Chemist's Business, returns over £1,000; cash business; well-stocked and neatly-profitable Agencies; good Tooth-extracting confection; large in exceptional reasons for selling; very good opening for new. For further particulars apply, H. Bramall, St. James Street, E.C.

EDFORD.—For immediate Disposal, an old-established Retail and Dispensing Business in Norfolk; owner having another engagement; lease; a bargain to an early purchaser. For full particulars, "Opal" (223/19), Office of THE CHEMIST AND DRUGGIST, 42 E.C.

EDGWARE.—A genuine Light Retail and Prescribing Business; one shop, well stocked, in densely-populated district; rent £100; established 12 years; proprietor taking larger business; 500, 128 Dereham Road, Norwich.

EDGWARE.—Well-stocked Prescribing and Dispensing and Light Retail; main road; last two years' returns about £650; profit about greatly increased; selling through want of capital; price house and garden. "Phenacetin" (223/23), Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

EDGWARE.—No opposition; immediate Disposal; low rent; no rates; price £20. 223/38, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

EDGWARE.—A genuine Retail Cash Business; main fare; splendid position; good living accommodation; rent £100 per month; price £450 net; full particulars to bona-fide buyers. 20/31, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

SUNDERLAND.—Recently opened Branch Business for Disposal, situated in densely-populated neighbourhood; no opposition within  $\frac{1}{2}$  mile; been greatly neglected; capable of great extension; difficulty in getting good manager sole reason for disposal; valuation. E. R. Cherrett, Chemist, Monkwearmouth.

A DOCTOR wishes to Sell his Chemist's Shop, in main thoroughfare between Hammersmith and Putney, with fittings complete; he would like to have use of consulting-room from 10 to 11 A.M. and 6 to 9 P.M. "Doctor," 109 Fulham Palace Road, W.

OLD-ESTABLISHED Business as Chemist and Dentist for Sale; returns last year over £1,230; owner about to retire. For particulars apply to "Genuine," c/o Messrs. Baiss Brothers &amp; Co., Jewry Street, Aldgate.

OLD-ESTABLISHED (20 years) in main thoroughfare; densely-populated dock and factory district, London; has done £20 per week; now sadly neglected; Dispensing, Prescribing, and Dentistry; very comfortable living accommodation; rent £40; price only £125. Apply, Norman &amp; Son, Town Hall Chambers, Stratford, E.

OLD-ESTABLISHED (20 years) in a going concern; only £2,500 cash, owing to serious illness of proprietor; returns during past 18 months exceed £4,000, all ready money; occupies commanding position; established 77 years; average yearly net profit £750; heavy stock; low rent; must sell; unique offer to immediate buyer or investor. Messrs. Mote &amp; Son, Solicitors, 11 Gray's Inn Square, London, will supply fullest particulars on receipt of bona-fide reference.

WHOLESALE, in large Lancashire town, for Sale, under exceptional circumstances; major portion of returns are in own Preparations and Patents, bearing a large profit, and affording unlimited chance of expansion; the net profit is estimated as being over £600 per annum; price for plant, goodwill, patents, trade-marks, &amp;c., £700; stock at valuation, about £1,300. F. J. Brett, Valuer, 37 Waterloo Street, Leicester.

£400.—Old-established Country Business, Prescribing and Agricultural; particulars on receipt of references; no agents. Apply, "Colocynth" (221/9), Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

## TO LET.

3s. 6d. for 50 words or less; 6d. for every 10 words beyond.

TO LET (seaside) in a main road, good neighbourhood, for Dispensing and Family trade, convenient House, side entrance; 7, 14, or 21 years' lease; fitted and stocked. Apply, "Cardamom" (223/26), Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

## SITUATIONS OPEN.

3s. 6d. for 50 words or less; 6d. for every 10 words beyond.

## RETAIL.

ALTRINCHAM.—Junior Assistant; outdoors. State age, references, and salary required to E. Hughes, Chemist, Altrincham, Cheshire.

ALDERSHOT.—Wanted, a smart Junior for a good-class Cash business; capable of taking occasional charge, and accustomed to Dispensing and putting up stock. Apply, giving full particulars, age, height, salary required, references, and enclose carte (which will be returned), to Allen &amp; Lloyd's Cash Chemists' Stores, Aldershot.

ASHBY-DE-LA-ZOUCH.—Early in September, a good Junior or Improver. Apply, with full particulars, to G. W. Bullen, Pharmaceutical Chemist, Ashby-de-la-Zouch.

BAKEWELL.—Wanted, temporary Assistant for about a week in September. State terms and particulars, to J. G. Carrington, Chemist, Bakewell.

BARNESLEY.—Wanted, immediately (outdoors), a smart Counterman; one accustomed to Prescribing and Store trade preferred. Full particulars of experience, age, height, and salary required, with photo if possible, to Oglesby's Drug Stores, Barnsley.

BATH.—Wanted, a Junior Assistant in a Dispensing business; one kept. Partington, 2 Beaumont West, Bath.

BECKENHAM.—Assistant; indoors; one used to good-class Store business preferred; student requiring evening employment or part-time would be preferable. Please state requirements and salary, C. F. Pain, 70 Beckenham Road, Beckenham.

BIRMINGHAM.—Outdoors. A smart Junior Assistant Photo, Hedges &amp; Son, Dale End, Birmingham.

BOLTON.—Wanted, for 1st September, Manager for small Mixed business; qualified; married; to live on premises; only honest sober, industrious man need apply. References and terms to H. B. Pare, Bolton.

BOSCOMBE.—Two Assistants wanted: one qualified for Dispensing, the other for Counter; must be quick and obliging, and thoroughly trustworthy; characters must bear strictest investigation. Apply, with photo, Hirst, Chemist, Boscombe, Bournemouth.

BRADFORD.—Assistant, outdoors; 21-23; steady and obliging; able to take charge if required; good references necessary; one able to do a little Extracting and Prescribing preferred. State age, salary required, and other particulars, to 220/24, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

BUDE (via North Devon Mail).—Wanted, a good Junior Assistant for two months; one accustomed to a Mixed business is preferred. Apply to Mr. Pillai, Chemist.

## SITUATIONS OPEN—cont.

## RETAIL—continued.

**B**RISTOL.—Wanted, immediately, Junior who has had experience in good Dispensing business. State age, height, salary required, and enclose carte (to be returned), to J. A. Brinsford, Kingsdown, Bristol. Also a vacancy for an Apprentice or Improver; exceptional opportunities for gaining a thorough knowledge of Pharmacy and Dispensing.

**C**APE TOWN.—Assistant required immediately, of good experience, holding Minor qualification, neat, and accurate Dispenser; must write a good legible hand; aged about 25; salary first year, £130; second year, £140; third year, £150; sleeping accommodation provided; second-class passage paid out conditional on a 3 years' agreement being signed; candidates must hold undeniable references. Address, "Cape," c/o Messrs. Evans, Lescher & Webb, 60 Bartholomew Close, London, E.C.

**C**APE COLONY.—Assistant wanted for Vryburg, Cape Colony; half passage and rail fare advanced; must be qualified; 3 years' agreement; salary £100 per annum, with board and lodging. 217/18, Office of THE CHEMIST AND DRUGGIST, 42 Caunon Street, E.C.

**C**ARDIFF.—Wanted, a smart Junior, of good address; outdoors. Anthouy & Co., Chemists, Cardiff.

**C**HELMSFORD.—Good Junior as temporary, early in September, in Agricultural business, to fill holiday vacancy. State age, experience, address James Tomlinson, Chelmsford, Essex.

**C**HELTEHAM.—Wanted, immediately, qualified Manager for widow's business; indoors; must be good Counterman, and well up in Dispensing. Apply, stating age, height, and salary required, to Mrs. Purnell, Chemist, Cheltenham.

**C**OWBRIDGE.—The end of August, or early in September, a qualified Assistant (indoors), of good address, for a good Country business; hours 8 to 8, half holiday weekly, and no Sunday duty. Apply, with full particulars of age, salary, references, &c., to Thomas, Great House, Cowbridge, South Wales.

**C**REWE.—Wanted, an Assistant at once, qualified preferred, for General, Prescribing, and Agricultural trade; indoors; close on Wednesdays at 2; must be active and industrious. Apply, with usual particulars, to Ashfield, County Drug-stores, Crewe.

**C**ROYDON.—Qualified Assistant, for 5 or 6 weeks, to take part charge; indoors. Apply, stating age, when disengaged, salary required, and usual particulars, to Marshall, Chemist, Addiscombe, Croydon.

**D**EAL.—Wanted, an Assistant, about 23, in a Light Retail and Dispensing business on the South-East Coast. Apply, stating age, height, reference, and salary required, with photo (to be returned), to John Green, Pharmaceutical Chemist, 28 High Street, Deal.

**D**ORCHESTER.—As Assistant, where Apprentice and man Porter kept; hours 8 to 8, except Saturday 8 to 10, and 8 to 4 Thursday; off duty at 2 every alternate Thursday; salary £100 (outdoors); qualified preferred; good-class Country and Dispensing trade. A. H. Evans, Chemist.

**E**ASTBOURNE.—An Assistant wanted (indoors); state age, height, salary required; send photo. Apply, R. H. Trickey, Chemist, Eastbourne.

**E**AST GRINSTEAD.—Wanted, a smart Junior (indoors), about 22, in good Dispensing and Mixed Country business; 5 kept; easy hours. State age, height, salary required, experience, when disengaged, Dixon, Chemist, East Grinstead.

**F**AKENHAM.—Wanted, at once, Junior Assistant or Improver, for good-class Country business; indoors. Apply, with full particulars as to salary, &c., to R. A. Metcalf, Fakenham, Norfolk.

**F**ALLOWFIELD.—Junior Assistant (one just out of his time), or Turnover would be treated with, accustomed to Dispensing. Frederick Boor, Fallowfield, Manchester.

**G**LOUCESTER.—Wanted, Junior; indoors; Light Retail and Dispensing; half-holiday weekly; must be good Counterman and capable of taking charge occasionally. Apply, stating age, height, experience, and salary required, and enclosing photo (to be returned), Wells, 31 Lower Barton Street, Gloucester.

**G**RANTHAM.—A good Junior or Improver for a Dispensing and Family business. Apply, stating age, height, salary (indoors), enclose photo, and reference, to John Newcome, Chemist, Grantham, Lincolnshire.

**G**RIMSBY.—Wanted, at once, a competent and energetic Assistant seeking permanency, chiefly to manage and work up small, neglected Mixed Retail branch; character must bear strictest investigation; aged from 25 to 30; must be efficient Prescriber and Tooth-extractor, also good salesman; if qualified and accustomed to Photographic trade preferred. Address applications, stating salary required (outdoors), references to last two employers, and usual full particulars, also enclosing photo (to be returned), to "Branch," 25 Hainton Street, Grimsby.

**G**OSPORT.—Junior Assistant, used to good-class trade; must be a neat, quick, and accurate Dispenser, and preferably one accustomed to Prescribing and Extracting; in or out doors; short hours and no Sunday duty. State age, previous engagements, references, &c., Smith, Chemist, Gosport.

**G**UILDFORD.—Junior Assistant, immediately, indoors, aged about 20, accustomed to good-class Retail; quick and accurate; none but good Countermen and thoroughly trustworthy need apply. State salary required, references, age, height, enclosing c.d.v. (to be returned), W. Jacobs, Chemist, Guildford.

**H**OUNSLOW.—Wanted, an Assistant, about 22 (qualified preferred), indoors; must have good references; time allowed for study if required. Apply, stating age, height, and salary required, with photo (to be returned), to J. Bowering, Chemist, Hounslow.

**K**ENT.—Wanted, a qualified Assistant for a Light business; indoors; easy hours; weekly half-holiday work; healthy neighbourhood. Apply, stating age, salary and usual particulars, to Highgate Pharmacy, Hawkhurst, Kent.

**K**IDDERMINSTER.—Branch Manager for good business; must be good Prescriber, and have undeniable hours; no duty on Sundays or Bank Holidays. State to scribe, Tooth-extractor, age, height, salary (outdoors), if married, what family, references, experience, qualifications photo to Griffin, Chemist, Kidderminster.

**K**ING'S LYNN.—A qualified Assistant (at once); of business short. Apply, with particulars of salary and reference, &c., to Neale, c/o Allen & Neale, King's Lynn.

**L**ONDON.—By September 14, a competent Junior Assistant preferred. Apply, stating salary and usual particulars, 142 Earl's Court Road, South Kensington.

**L**ONDON.—Wanted, about 21st August, a single Gentleman, years, and qualified, to take charge of a Retail, and Doctor; he will be expected to keep himself, but residence surgery; character must bear strictest investigation. State or a personal visit daily at 4 o'clock P.M. to M.D., 19 Elgin

**L**ONDON, S.W.—Wanted, at once, an energetic Assistant; address; used to good-class Dispensing and Retail Bank-holiday duty. Bowden's High-class Drug Store, H. Wimbleton.

**L**ONDON, S.W.—Wanted, a good man, qualified or over 30; competent Dispenser, and good knowledge of Sundries; outdoors. Apply to Francis & Son (Limited), 1 Brixton Road, S.W.

**L**ONDON, S.W.—Capable Assistant; qualified preferred; good references; half-day off each week; indoors; cation. G. D. Cooper, 133 High Road, Balham, London, S.

**L**ONDON, W.—Immediately, Junior Assistant, of good well recommended, with Photographic experience pr by letter, Barry, Phillips & Co., 78 Broadway, Ealing, W.

**L**ONDON, W.—Smart, active Junior; indoors. State salary required, enclosing photo if convenient, "P Holland Park Avenue, W.

**L**ONDON, W.—Wanted, at once, a good Junior. Rob Wardour Street, Oxford Street, W.

**L**ONDON, W.—September, a thoroughly competent Major qualification preferred, but not essential) to Dispensing-counter; aged about 25; salary to commence a Apply by letter, to "The Pharmacist" (218/25), Office of THE DRUGGIST, 42 Cannon Street, E.C.

**L**ONDON, W.—Junior Assistant wanted, about 21; Dispensing, good-class Retail. Send particulars of experience, and reference, J. W. Feltwell, Hammerton low Kensington.

**L**ANCASHIRE.—Health-resort; for about 4 weeks, part accustomed to Drug Store trade preferred. Apply, 192 33, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**L**INCOLNSHIRE.—Qualified Assistant wanted, to nake Apply, stating salary and full particulars, to R. Spilsby.

**L**ONDON, N.W.—Wanted, soon, a qualified Assistant Mauage a Branch; must have good references and indoors; bedroom and sitting-room found; salary and comm personally (to save time), to R. Humphrey, 12, Upper Belz Swis Cottage Railway Station.

**L**ONDON, S.E.—Assistant; aged about 23; small bus time for study if required; closed Sundays; about State age, height, salary, which must be moderate, and to any, also nature of experience, if by letter enclose photo, P. 193 Knight's Hill Road, West Norwood.

**L**ONDON, S.E.—Junior, by September 1, for middle-cl hours morning and 2 hours afternoon allowed for reading for Minor. Send usual particulars and reference interview by appointment, Beale & Son, Chemists, 12 South Norwood, S.E.

**L**ONDON, S.E.—Wanted, at once, Improver for Cash doors (part board indoors). Apply, R. Blackie, 43 Bermondsey, S.E.

**L**ONDON, S.W.—Wanted, Junior Assistant, about 21, of August; must be well up in Dispensing and a abstainer preferred. Apply, personally or by letter, giv lars, to Lloyd, 267 King's Road, Chelsea, S.W.

**L**ONDON, S.W.—Assistant for September; thorough must be able to Extract Teeth. Address, with full salary, C. P., 235 North End Road, Walham Green, S.W.

**L**ONDON, W.C.—To Students.—Indoors; part-time 22 years of age, in good class business; convenient to Chaucery Lane Schools. Address full particulars to "The Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**M**ALTA.—Required, early in September, a qualified Assistant good-class Dispensing; must be steady and willing to possess some knowledge of Photography; aged about 24; in first year, £9 10s., second, £10, third year; sleeping accommited, but no board; second-class passage paid out and back candidates must hold undeniable references. Address, "M. Lescher & Webb, 60 Bartholomew Close, London, E.C.

**M**ANCHESTER.—Junior Assistant, outdoors, in business; aged about 20 or 21. State age, height, and when disengaged, to F. Robinson, Chemist, Bradshaw Side, Manchester.

**N**EWCASTLE (Staffs).—Assistant, for Light Retail and Dispensing business; indoors. State salary required, reference, and full particulars to E. H. Croydon, Newcastle, Staffs.

**N**EW MARKET.—Senior Assistant wanted; must be qualified; good character; indoors. Enclose photo, state salary required, Carr, Newmarket.

**N**EWBURY.—Fielder & Co., Chemists Newbury, require an Assistant (qualified preferred) of good appearance and address, well up to a Country trade with Photography; no one need apply unless they give the highest references in every way; short hours; no Sunday toilers; one who wishes a permanency would have preference.

**P**UTNEY, S.W.—Wanted, a Junior Assistant for a good-class business with Post-office. Apply, stating age, salary required, &c., with photo, Thos. Evans, Chemist, Putney, S.W.

**R**IPLEY.—Junior or Improver for September 2, thoroughly reliable, Mixed Country trade; half holiday, also time for study if desired. Apply, full particulars, to Geo. Heaton, Chemist, Ripley, Derbyshire.

**R**OFORD.—Required, about first week in September, good Junior Mixed business; knowledge of Photographic trade and abstainer. Please send photo and particulars to Lasham, Pharmacist, Romford.

**S**OUTH COAST.—An Assistant wanted (indoors); one accustomed to store trade preferred. State age, height, salary required, H. R. Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**S**TONE.—Assistant to manage Branch; Mixed trade; must be well recommended. State age, height, salary required, with all other particulars, and enclose photo (to be returned), to F. Jacks, Chemist, Stone, Staffs.

**S**OUTHAMPTON.—Improver or Turnover Apprentice wanted, immediately; a comfortable home. State age, height, salary required. photo. W. Baxter, 160 High Street, Southampton.

**S**WANSEA.—Wanted, an intelligent business-like man to take entire charge of a select Branch business; must be well recommended. Apply, with full particulars, enclosing photo, to J. T. Davies, Chemist, Walterhead.

**T**ORQUAY.—Wanted, an Assistant, as Dispenser at Holloway's London Dr. Stores, Torquay; 4 kept. Apply, personally, to Holloway, Stand 3, Chemists' Exhibition.

**U**TTOXETER.—Wanted, a good Junior or Improver, about 20 or 21, suitable for good-class Country Mixed Retail and Dispensing; must be accurate, neat, and obliging to customers; principally for good Salesman and of good appearance and address; outdoors; half-holiday; good salary to good man likely to stay 2 years if both good; good references. Hankinson, Uttoxeter.

**W**EGBATE-ON-SEA.—Wanted, now till end of September, a gentlemanly Junior Assistant, well up in high-class Dispensing, ch. carte, height, references, and salary required, to F. R. Bassett, Chemist.

**W**HARFAX.—Wanted, an Assistant; outdoors; qualified; good business. State age, salary required, &c., John H. Grayson, Ret. Whitehaven.

**W**RAXHAM.—Immediate: Minor man; age 24; hours easy; half-holiday; outdoors; first-class Pharmacy. Give all particulars, enclosing photo, C. G. Caddeott, Regent Pharmacy, Wrexham.

**W**OTTON-UNDER-EDGE.—At once, active, obliging, and trustworthy Junior Assistant or Improver wanted (indoors), about 20, Retail and Dispensing; easy hours, half-day weekly. References, all full particulars to E. G. Portlock & Sons, Wotton-under-Edge.

**A**QUALIFIED Assistant for Dispensing, and to assist at counter. Apply, with full particulars as to reference, salary (outdoors), to J. Stew, 389 High Street, Cheltenham.

**C**HERTON & OGLE, Tunbridge Wells, require a Junior Assistant (indoors) at once.

**M**EERS, LAKEMAN & CO., Church Place, Leytonstone, have an opening for a Senior Assistant; qualified preferred.

**Q**UIFIED Assistant; must be pushing and energetic; for Branch; gentleman from a provincial house not objected to; the duties are evening a week out; very little Sunday duty. Apply, stating age, salary required, &c., to "Statim," c/o Messrs. Fisher & Webb, 60 Bartholomew Close, E.C.

**T**WO Assistantships required, one for Brighton and one for Dursart, Sussex Drug Company (Limited), 135 Queen's Road, Dursart, Sussex. Good salaries and prospects for steady, capable men; a Locum-tenens also wanted at once. Apply, with full particulars, experience, age, height, &c., with photo if possible, to Dursart, Sussex Drug Company (Limited), 135 Queen's Road, Dursart, Sussex.

**W**ANTED, two gentlemanly Assistants, about 22-24, who have had experience in good-class Retail and Dispensing; half-day weekly. Apply, with full particulars, and state salary (indoors) to A. A. Bones, Coventry.

**W**ANTED, Assistant, to help in business, and also in turning business to Limited Liability Company (three Retail shops); one who has a little capital preferred; one with Minor qualification, and to be liberally dealt with. X. (215/7), Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**W**ANTED, a smart, thoroughly trustworthy young man to travel Manchester and district among Chemists, Co-ops, Stores, &c., with Specialities and Packed goods; one used to Country Wholesale office provided in Manchester; good character and references desirable; salary and commission; an active worker might make a good berth. Apply, "Pectakos," Victoria Road, Hanley.

**£2** a-week.—Immediately, a qualified Assistant, to take charge of a Branch in the Harrow Road; rooms, coal, and gas found. J. W. Taplin, 96 Craven Park Road, Harlesden, N.W.

**M**INOR Student, to work with comfortable home. Write to Brown, 98 Ormside Street, Old Kent Road, S.E.

## WHOLESALE.

**A**ND established firm of Soap Makers are open for smart, energetic Representatives in the provinces. Address, with full particulars and experience, "Soap," c/o Messrs. Street & Co., 31 Cornhill, E.C.

**A**ND intelligent, well grounded Chemist not under 30 years, required by London Sundry house as Traveller; long experience as traveller essential; only those willing to be engaged for permanency need apply; ground, probably South Midlands and western half of south coast; expenses allowed, £5 per week; salary £60 and bonus salary averaging to £20 per annum, according to ability; unmarried man and abstainer will have preference. Write all past employments and names of such firms, H. (219/31) Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**B**OOK-KEEPER and Assistant Manager wanted by a large Wholesale firm for their house in Sydney, N.S.W.; age should not exceed 30; must be a Pharmacist with knowledge of double-entry book-keeping and general correspondence; will be required to take charge in absence of manager; commencing salary £200; passage paid out. Apply by letter, stating age, experience, and full particulars, to X. Y. Z., c/o T. Dixon's Advertisement Offices, 16 Great Marlborough Street, W.

**C**APE COLONY.—Wanted, in a first-class English house, a smart, qualified Assistant. Apply, with full particulars, to "British" (190/41), Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**D**UBLIN LABORATORY.—Wanted, by a Dublin Wholesale Drug house, an Assistant capable of taking entire charge. Apply, giving full particulars, terms, &c., 192/10, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**E**NERGETIC Representative, of smart manner and appearance, for each of following grounds—viz., Newcastle and East Coast, South Wales and Lancashire, to push with Chemists, &c., Proprietary articles of high merit, and already established in many parts of the country; one having had Salesman's and Dispensing experience preferred. All applications must give full particulars as to experience, copies of references, and state age and salary required, to P 27, c/o C. Birchall, Advertisement Contractor, Liverpool.

**R**EPRESENTATIVES wanted, already working Lancs., Yorks., Wales, Midlands, to sell certain Specialities and Packed Goods as an extra line, on commission. State full particulars to "Alpha" (219/9), Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**S**URGICAL Instrument Trade.—Wanted, Junior Clerk for a large Warehouse in City; must be quick at figures and good writer; one used to the trade preferred; good prospects; first-class references required. Apply, 218/2, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**W**ANTED, a young man who takes an intelligent interest in trade matters, to travel calling upon Chemists and Druggists and Ironmongers; he would not be required to carry samples; state previous experience. Apply, 189/70, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

## SITUATIONS WANTED

1s. for 12 words or less; 6d. for every 6 words beyond.

### RETAIL.

**S**MART qualified Chemist, as Locum or Manager; 27. W., 7 Gold Street, Tiverton.

**L**OCUM; 32; disengaged 18th inst. Jones, c/o Mr. Price, Chemist, Horfield, Bristol.

**J**UNIOR; 24; 8 years' Mixed experience; disengaged. Grace, Albert Street, Keighley.

**L**OCUM-TENENS; qualified; aged 44; disengaged August 31. O. M., 347 Green Lanes, N.

**G**OOD all-round quick trade (in or out), or as Locum. D. Pearce's, Chemist, Edmonton.

**L**OCUM; disengaged; aged 27; Minor. Wire, "Adolphus," 286 High Holborn, London, W.C.

**M**ANAGER; qualified; aged 27; disengaged. F. Smith, North Street, Bourne, Lincs.

**L**OCUM; qualified; disengaged; 42s. and fare. "Chemist, 14 St. Linke's Terrace, Darlington.

**J**UNIOR; 21; London preferred; time for study. F. Sencicle, Birmingham, Doncaster, Lincs.

**L**OCUM-TENENS; 45; disengaged 16th. H. Baker, c/o Leverton Street, Kentish Town, N.W.

**M**ANAGER; qualified; 29; good experience. H. O., 1 Elm Park Terrace, Fulham Road, S.W.

**M**ORNING or Evening employment; Student; 23. Ball, 42 Pembridge Road, Bayswater, W.

**J**UNIOR; 20; used to good-class business; South. Gibbs, c/o Mr. Palmer, Chemist, Saxmundham.

**E**VENING employment; qualified; any capacity; reliable; London experience. 29 Aynhoe Road, W.

## SITUATIONS WANTED—cont.

## RETAIL—continued.

**L**OCUM or Manager; town and country experience; aged 28; qualified. "Carui," Heckington.

**A**s Manager or otherwise; qualified; aged 28. "Cymro," Upton House, Narberth, Pembskeshire.

**J**UNIOR Assistant; 23; 7 years' experience, London; disengaged. Harris, 24 Parsons Mead, Croydon.

**I**MPROVER or Junior; 4½ years' experience; Photographic knowledge. Green, South Parade, Derby.

**P**ART-TIME Assistant, aged 25, with time for study and to attend classes. T. Hewson, Caistor, Lincoln.

**J**UNIOR; 5 years' experience; Photographic knowledge; outdoors. Monkman, 156 Clapham Road, S.W.

**J**UNIOR; 21; London; 4 years' experience; disengaged August 14. P., 11 Kensington Road, Morecambe.

**P**ART-TIME or occasional help; North London preferred. "Pharmacist," 7 Turnpike Lane, Hornsey.

**Q**UALIFIED; abstainer; 25; outdoors; disengaged. "Chemicus," 2 Deneham Terrace, Sandal, Wakefield.

**A**s Manager or outdoor Assistant; Continental experience; Minor Seelenr, British Pharmacy, Bonn.

**L**OCUM; Dispenser (Brighton preferred part-time); 28; steady. S. J. R. S., 5 Trinity Road, Wimbledon.

**A**SSISTANT (part-time); London preferred; good experience. Davies, Ty Wyth, Pontardawe, Swansea.

**L**OCUM-TENENS; qualified; aged 25; disengaged. "Alpha," 91 Bolsover Street, Great Portland Street, W.

**L**OCUM, where Apprentice kept; disengaged October; moderate. "Reliable," 13 Hagley Road, Birmingham.

**U**NQUALIFIED; good Prescriber, Extractor; long varied experience. "Radix," Main Street, Carlton, Nottingham.

**M**ANAGER; qualified; good Prescriber and Dispenser, Tooth-extractor. Lea, 4 Harbou'r Street Folkestone.

**E**VENING employment by experienced Assistant; disengaged 5; N. or W. "Statim," 166 Soutlegate Road North.

**A**SSISTANT; aged 39; married; unqualified; experienced; disengaged. "M.," 9 Blyth Street, Newcastle-on-Tyne.

**L**OCUM; disengaged from August 17; abstainer; reliable; 29; Major. Williams, c/o Wardley, Chemist, Tonbridge.

**J**UNIOR; 20; 4 years' experience; situation in first class business; Dispensing preferred. "Vinn," 60 High Street, Dorking.

**T**o Chemists and Dentists.—Good all-round Assistant; 7 years' experience; Hall certificate. Fox, St. Stephen's Road, Portsmouth.

**A**s Locum or Manager Prescribing business; qualified; good all-round man; disengaged. "Stibium," P.O., West Gorton, Manchester.

**J**UNIOR; 21½; 5 ft. 7 in.; outdoors; Extractor; Liverpool or Manchester; good references. Haworth, 99 Hospital Street, Nantwich.

**L**OCUM-TENENS; 27; Minor; Hospital and West end experience; good references; disengaged August 23rd. B., 156 Green Lanes, N.

**M**ANAGER; capable, energetic, experienced; 39; qualified. "Tall" (223/4), Office of THE CHEMIST AND DRUGGIST, 42 Cannon St., E.C.

**J**UNIOR Assistant; 19½; 4 years' experience; disengaged. "Neutra" (219/16), Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**L**OCUM-TENENS; London and provincial experience; can take entire charge; highest references; aged 27. Brown, 412 Strand, W.C.

**A**s Junior, in Bournemouth; outdoors; highest reference; 4½ years' experience; knowledge of Photography. B., 10 Grosvenor Villas, Bath.

**A**s Improver; 18; 3½ years' experience; disengaged September 13; London preferred. Apply, H. P., Goodman & Co., Gipsy Road, West Norwood.

**P**HARMACIST, having West-end and Continental experience desires Locum engagement; aged 27; highest references. 45 Craven Road, Paddington.

**M**ANAGER; 40; married, no family; London or suburbs; best references 219/12, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**E**VENING work undertaken by a qualified and experienced Chemist, aged 29, in London. Address, E. M., 200 Cambridge Road, Kilburn, London, N.W.

**D**ENTISTS (Mechanical).—Assistant, aged 25, 7 years' experience, disengaged, requires situation. T. M., 18 Attwood Terrace, Wolsingham, Durham.

**A**s Assistant or Manager; aged 29; qualified; first-class experience; good references; disengaged. Cooke, 168 South View Road, Sharrow Lane, Sheffield.

**C**HEMIST; tall; experienced; Locum or otherwise. 219/12, Terrace, Muswell Hill.

**L**OCUM or permanency; country preferred; qualified. 83 Martin Street, Stratford.

**J**UNIOR; 22; September 14; Dispensing business. High Street, Camden Town.

**L**OCUM; thoroughly competent, steady, and reliable. "Statim," 409 King's Road, Chelsea.

**D**ISPENSER; Locum or permanent; qualified. 24, "Beta," 24 Cromer Street, W.C.

**L**OCUM or otherwise; aged 40; disengaged 14th; steady, and references. "Extractor," 14 The Parade, Toxteth.

**L**OCUM; Major; aged 25; disengaged August 1; excellent references. Fraser, 5 Milner Square, Islington.

**A**s Assistant; qualified; in or out doors; 27; good references. c/o Mr. Loesby, 4 Thayer Street, Manchester, S.W.

**L**OCUM; disengaged August 24; qualified; good references. "Chemist," 28 Wedmore Gardens, Holloway, London, N.

**F**RENCH Student desires situation at French. P. speaks English. "Barbin," T. Thob & Co., 5 Fen.

**L**OCUM; confidential; sober and up to date; at liberty for 3 terms reasonable. Fairweather, 51 Charlotte Street, W.

**W**ANTED. situation as Manager; married; permanent. Extractor; good references; unqualified. Apply, P., Gate, Newark.

**J**UNIOR; 21; outdoors; 5 years' experience; disengaged. Large town preferred; references. Address, M., H., 52 Street, Southport.

**D**ISPENSER to Chemist, Surgeons (firm), or Institution; experienced; good references; disengaged. M., Big Zink Liscard, Cheshire.

**A**SSISTANT; 23; 7 years' experience, Retail and Industrial; counterman; Photography; good references. "Beta," 24 Cannon Street, Birmingham.

**L**ADY **D**ISPENSER to a Doctor or Institution; i. or p. qualified; abroad not objected. "Florentia," 117 Canonbury, London, N.

**M**ANAGER, or outdoor Assistant; qualified; good experience engaged; aged 29; Prescriber and Extractor. J., 81 Lilation Street, Roath, Cardiff.

**M**ANAGER or Locum; first-class all-round experience; disengaged. "Codox" (223/24), Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**Q**UALIFIED; good experience, highest references; Liverpool preferred. A.P.S. (218/3), Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**H**OLIDAY Locum; retired Pharmaceutical Chemist; sional occupation; abstainer; disengaged; references. "Chemist," 45 New Walk, Leicester.

**O**CTOBER; temporary or permanent; 5 ft. 6 in.; qualified; can manage; knowledge Homeopathy. Terms and Wild, 17 Garfield Road, Scarborough.

**L**OCUM-TENENS; registered; good references; Northern Counties preferred. "Beta" (222/6), Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**Q**UALIFIED; 28; disengaged; Prescriber. Dispenser; good references; West-end and varied experience. 223/31, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**A**SSISTANT; 21; 5 years' experience; accustomed to Prescribing; good references. "Ipecac." (220/23), Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**W**ANTED, work with good Chemist for Minor nervous illness; indoors; nominal salary. Apply, E., of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**Q**UALIFIED; 20 years' experience; good references; partnership, Firm of Surgeons; Hospital, Management or other suitable position. "Alpha," 26 High Street, Abergavenny.

**A**SSISTANT; unqualified; 9 years' high-class Store good references; aged 25; height 5 ft. 6 in. Apply, (219/19), Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**F**RANCE.—Pharmaceutical Chemist (24) desires situation the Riviera; 3 years' good-class London experience; son of French. D. S., Bateman's Pharmacy, Finchley Road, London, N.W.

**F**RANCE, Switzerland, or Italy.—Pharmaceutical Chemist engagement for season or permanency; highest references; London and Duhlin experience. W. J. H., 53 Brixton.

**R**IVIERA OR ITALY.—Qualified Chemist; 27; tall; experience of International Pharmacy; speaking fluently English, German, and some Italian; high references. Bernott, Phamann, Carlsbad, Austria.

**TOBACCO**—Seaside or Isle of Man preferred, as Manager or other-qualified; 25; 10 years' varied experience; temporary or lary and particulars to 219/3, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**INNERS**—7; disengaged early September; completing 12 months' agent, London; good-class berth, no stores; London or South excellent references. "Samibucks" (223/1), Office of THE DRUGGIST, 42 Cannon Street, E.C.

**LYMAN**—man, qualified, 27, speaking English and French fluently, Italian; 2 years' first-class London experience, 2 Ostend or Rome or Naples preferred; disengaged October. L. The Pharmacy, 223 Finchley Road, London.

**THOMAS**—UGHLY efficient and qualified Chemist seeks re-engagement high-class Drug Stores as Manager or Head Counterman; or country; outdoors; first-class testimonials. Address, 219/22, THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.O.

**TEILER** (Italy).—German qualified Chemist (25), with large experience international pharmacy, speaking English, French, and some Italian; in regus situation in Mid-France or Italy; excellent references; Manton reasons. R. Haerlein, c/o Schacht & Co., 26 Finsbury Street, London, E.C.

## WHOLESALE.

**BERGIC** young man wants employment; experienced in Lab. work. Bennett, 226 Peabody Square.

**RAVEIER**; experienced; town or country. "Radix" (220/8), Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**RAVEIER**, Chemists' Stores, &c.; connection Newcastle to Hull; just disengaged; references. "Chemist," 14 St. Luke's Terrace, London.

**INDRI**.—A young man, well up in Sundries, desires engagement as Buyer or Town Traveller; is at present travelling provinces; at references. X, 55 High Street, Colliers Wood, S.W.

**REST-CASS** Traveller open to engagement; Drugs, Instruments, special; connection; interview. "Ergotine" (216/5), Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.O.

**RAVEIER**.—Manager; qualified; considerable experience in London house; excellent reference. E. T. (219/30), Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**RAVEIER** seeks re-engagement to Drug or Sundry house; has covered extensive ground; aged 27; tall; good experience; excellent references. "Mason," 5 Hatherley Street, Princes Avenue, Liverpool.

**NALY**.—Gentleman (30) seeks engagement; 6 years' experience analysis of Milk, Cream, Butter, &c., in a well-known London 23/9, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**RAVEIER**, driving London, large and sound connection, is open to negotiate with a first-class firm for sole or part representation; no "Advice" (223/30), Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**VALIED** (28); first-class experience; early in September; thoroughly competent and reliable; interview required (London). particulars, "Scientia" (221/14), Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**RAVEIER**.—A thoroughly reliable man, with a connection in the North, desirous of transferring his services to a really good house; causes only entertained. Address, in confidence, 221/28, THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**DRUGGISTS** Sundries, Surgical Instruments, &c. — Advertiser, having good experience in above, and now with large city export engagement as Buyer or Manager to department in Export and Stores' house. Address, B. (219/32), Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

## MISCELLANEOUS.

Special charges are made for Advertisements under this head, which can be obtained on application.

**WALTERS**.—Wanted to buy a moiety or a portion of an high-class Proprietary having a sale of two thousand yards. "Practical," Box 76, Sells' Advertising Offices, 27 Belgrave Road, Dublin.

**GENC**—Wanted by a gentleman, with a connection through amongst Chemists, Grocers, and Hardware men, with an arable position in Dublin (Perfumery, &c., preferred). 27 Belgrave Road, Dublin.

**DATEN**—MEDICINE OR PROPRIETARY.—Wanted, a well-established article capable of increase; anything bearing a net profit £100 will be entertained, or larger. "Buyer" (191/39), Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**THE TRADE IN SCOTLAND**.—I desire to inform Chemists that I will be in different towns in Scotland after the 20th inst., to call on any Chemist and Druggist, with samples of Cycles and Kahlmann's Cachets, &c., on receipt of a post to me. L. Brager, 356 City Road, London, E.C.

**CHEMISTS** Shop-furniture.—Ranges mahogany drawers, with bevelled-edge glass labels and cut-glass knobs, shelving above, lockers below; mahogany dispensing-screens; counters with glass-case fronts; wall-cases; bent-front and flat-top counter-cases; counter-desks; tooth-brush cases; complete shop-rounds &c.; every requisite for Chemists, new and second-hand; extensive stock to select from, at extremely low prices; practical men sent to all parts; estimates free. Matthews, Chemists' Fitter, 14 Manchester Street, Liverpool.

**CHEMISTS** Shop-fittings.—Complete set suitable for branch or store; 12-ft. mahogany and plate-glass serving counter, with 13 drawers at back; 14-ft. handsome fitting, bevelled-glass labels and cut knobs to drawers; mirror poison cupboard, shelving, pilasters, &c.; 6-ft. superior bevelled mirror dispensing-screen, with plate-glass counter, and sponge-case under; 10-ft. attractive wall-case; desk and perfume case; mahogany and bent plate-glass counter case; 180 enamelled shield-labelled bottles; 16 4-lb. unq. jars; French scales and weights, &c. Price 80 guineas, ready for use. Philip Josephs, 54 Old Street, City Road, London, E.O.

## CUCUMBER AND GLYCERINE.

**ROUSE'S** Cucumber Paste is the best for preparing Cucumber Emulsion. Formulas and labels free with each jar; 1 lb. (for 3 lbs. emulsion), 2s. 3d.; 1 lb., 4s. 3d.; 7 lbs., 25s., post free. Rouse, 61 Charlotte Street, London, W.

N.B.—Cucumbers actually enter into the composition of this article.

## CIVIL SERVICE COMMISSION.—FORTHCOMING EXAMINATION.

**DISPENSER** in H.M. Naval Hospitals at Home and Abroad (20-25); August 25. The date specified is the latest at which applications can be received. They must be made on forms to be obtained, with particulars, from the Secretary, Civil Service Commission, London, S.W.

## PRELIMINARY AND MINOR.

**STUDENTS**! Write to-day for a "Guide to Examination," gratis and post free, giving the best advice how to prepare. Knotty Points in Latin Grammar, 1s. 6d.; Caesar Simplified, 1s.; Metric System Simplified, 1s.; How to Write an Essay, 3d.; Equations Simplified, 1s.; Notes on Dispensing, 1s., post free. Mr. J. Tully (Hills Prizeman), Obenist, Hastings.

## J. GINSBERG'S SPECIALITIES

And FRENCH QUININE PESSARIES in long Red Boxes. Labeled, Cheap Line, and Reliable. Importer and Agent for B. TABINOS' (of Paris) LATEST NOVELTIES IN RELIABLE SILK RUBBER GOODS. The BEST and CHEAPEST in the TRADE. Samples and a New Price-list sent post free to all parts of the Continent, Colonies, and Abroad.

17 PROVIDENCE PLACE, MIDDLESEX STREET, ALDGATE, LONDON, E.C.

## STIRLING'S "MINOR" AIDS.

Tabulated Materia Medica, B.P. 1885-90, and Non-Official, 2nd Edition. Much time and laborious study saved by use of this Table. 1s. 6d. Notes on Dispensing, 1s. (4th) Interleaved for MS. notes. 1s. 6d. Sp. Grav. and Percentages of B.P. 1885-90. New and Improved Edition. Scheduled Poisons (Parts 1 and 2) in distinctive type. 1s. Equations, &c., of the B.P. Chemicals. An aid to the Chemistry of the British Pharmacopoeia, and a Guide to Equation Writing. 1s. Synopsis of Strengths, B.P. 1885-90. By means of this little book a month's work may be easily done in a few spare half-hours. 1s. Pharmaceutical Latin and Prescription Reading. With Key. 1s. 6d. Post free per return for P.O. or stamps, from the Publisher—

JOHN GOWER, 4 Lancing Road, Ealing, LONDON.

## GOOD FORMULA WANTED.

### Raspberry Essence.

A Manufacturer requires a thoroughly reliable Formula for a Raspberry Essence. If the quality is satisfactory he will pay

**£50**

for the Sole Right in the Formula.

Replies, accompanied by a sample bottle of the Essence (not less than 8 oz.), to be sent to "Raspberry" (201/9), Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

*R. JOHN LONGMAN BRAGG, Deceased.*

**PURSUANT** to the Statute 22 & 23 Victoria, cap. 35, Notice is hereby given that all persons having any claims against the estate of John Longman Bragg, late of Harewood House, Hendon, in the County of Middlesex, and of 14 Wigmore Street, in the County of London, Biscuit Manufacturer (who died on the 12th day of September, 1896, and whose Will and two Codicils were duly proved in the principal Probate Registry on the 19th day of February, 1897, by Annie Longman Bragg and John Howell Spence, the Executrix and Executor named therein), and all persons having any claims against the estate of the said John Longman Bragg, or against the said Executrix and Executor in respect of the business or businesses known as "Bragg's Charcoal Biscuits" and otherwise, carried on at No. 14 Wigmore Street aforesaid by the deceased prior to his death, and by the said Executrix and Executor after his death, are hereby required to send in particulars of their claims, in writing, to the under-signed on or before the 22nd day of September next, after which date the said Executrix and Executor will proceed to distribute the assets of the said deceased among the parties entitled thereto, having regard only to such claims and demands of which they shall then have had notice; and the said Executrix and Executor will not be liable for the assets nor any part so distributed to any person of whose claim or demand they shall not have had such notice as aforesaid.

Dated this 7th day of August, 1897.

LYNE & HOLMAN,  
5 and 6 Great Winchester Street, London, E.C.,  
Solicitors to the said Executrix  
and Executor.

# EXCHANGE COLUMN-BARGAIN

## TERMS.

**DEPOSIT.**—The purchaser of anything advertised in the Exchange Column may remit the amount to us, and we will pay the money deposited on advice from the remitter. We charge a commission of 6d. on any transaction of £3 or less, or 1s. if above that amount, which is payable by the purchaser.

*Limited to the Advertisements of Surplus Stock, Shop Fitments, Apparatus, Photographic Goods, Books and Periodicals, Addresses Wanted, and Articles Wanted.*

**1d. per word with name and address. 1d. per word if we register the address and attach a number.**

**No Advertisement Inserted for less than 6d.**

### APPARATUS.

**Surplus stock.**—Several clinicals, also hypodermic syringe and stethoscope cheap. "ADOLPHUS," 286 High Holborn.

**Suppository.** bougie and pessary mould, each Maw's pattern, no further use, under cost. Particulars from WARNEs, Chemist, 333 Gray's Inn Road, W.C.

### BOOKS AND PERIODICALS.

**Kirke's "Physiology,"** last edition, new, 15s., for 10s., free. F. HORNIBLOW, Lidbury, Worcester.

**11 vols.** Blackie's "Encyclopedias," cost 12s. per vol., new; what offers? JACKSON, High Town, Luton.

**For Sale,** Crockford's "Clerical Directory," '94, and "Medical Directory," '96; condition like new; what offers? S., Box 74, Sell's Advertising Offices, London.

**Ganot's "Philosophy";** Wills's "Materia Medica"; Remsen's, Turner's, Watts's "Organic Chemistries"; Vine's "Botany"; Minter's "Analysis"; all one-third published price. ELLISON, Huddersfield.

### DRUGS AND CHEMICALS.

**Gum opii,** 7s. lb., 7 lbs. at 6s. 6d.; 4 Win. Inf. Calumba. Cone. (Umney's), 9d. lb. 222/16, Office of the C. & D.

### OPTICAL AND PHOTOGRAPHIC.

**1/2-plate** Lancaster's combination Rectigraph lens; list price 30s.; what offer? RIDLEY, Carlisle.

### PROPRIETARY ARTICLES.

**Daisy** powders, 45 ls. 1½d., 9 ½d.; no reasonable offer refused. TWELVES, Chemist, Sheffield.

**30 ls. 9d.** packets Spong's pig-powders, £1; 50 doz. 1s. Keene-Ashwell's homeopathic medicines, saleable kinds, perfect condition, 1s. 6d. doz. 222/16, Office of the C. & D.

**Soiled** patents; any reasonable offer accepted: 1 ls. 6d. James's blister; 1 ls. 1½d. Kay's tie-pills; 1 2s. 9d. Carter's iron-pills; 3 2s. 3d. Epico's cigarettes; 6 1-oz. tins antipyrin; 1 2s. 3d. Pond's extract. BURGE, Fernhead Road, Paddington.

### SHOP FITTINGS.

**Splendid** specie-jars and some carboys for sale, cheap. H. BRETT, Fakenham, Norfolk.

**Two** handsome swan-neck carboys, glass cut stoppers, height 47 in. BROOKS' DRUG STORES, Deptford.

**Centre-lamp,** like Wenham, 2 extra globes and 10 extra burners, 30s. CLUB, Smithdown Road, Liverpool.

**Pitch-pine** cabinet, 24 large drawers, with cupboards over, 12 ft. long, 9 ft. high, suitable for wholesale; cheap. BECK, Hastings.

**Stock** and fixtures for immediate disposal, at valuation; would suit a branch or otherwise. Write to E. & I. J. DADLEY, 21 Cartergate, Nottingham.

**Complete** fixtures and utensils, suitable for branch business; counter glass cases, specie jars, and carboys, pink dome-top jars, drawers, &c. SMITH, Chemist, Gosport.

**Prescription-scales,** as fig. 978 Ayrton & Saunders' list, marble slab and flat glass top, 3-in. nickel-plated pans. Apply, W., Ayrton & Saunders, Liverpool.

**Shop-fittings,** containing wall-case; 2 counter-cases; range of drawers, glass knobs, glass bevelled labels; suit small shop; cheap, or exchange. BROOKS' DRUG STORES, Deptford.

### FORMULÆ.

**Book** of 130 well-tried recipes for chemists; general, remedial, toilet; post free, 1s. 6d. TULLY, Chemist, Hastings.

### MISCELLANEOUS.

**Skeleton,** human adult male, complete, skull to toes; articul. offers? 216/28, Office of the C. & D.

**Twenty-four** 2s. and 12 ½s. Field's cattle-oils; 1 "Enterprise" press, good as new; what offers? GRIMBLE & KENT, Bost.

**Soda-water Trolley;** a boy of eight can easily convey 3 doz. syphons and cases any distance; 35s., carriage paid. ARTHUR & CO., C.

**Overstocked.**—Sticky fly-papers, 5 gross each 1d. and ½d. quite new, 4s. and 2s. 3d. gross, carriage paid. RIDGE & CO., South Shields.

**Having** two water-beds, will sell one (72 by 36 in.), Maw's 18s., £5 18s.; only once used; price £3 3s. or offer ROST & CO., Pharmaceutical Chemists, High Street, Lewisham.

**Large** quantity oval gelatine coated female-pills, "Warner's male" liq. ext. cottou-bark; Bonjean's ergotine; pessaries, spots in nets, dispensing-scales, with other stock; all good condition; granted genuine. Send business-card for list to 222/21, Office of the C. & D.

**Loofahs,** 12 in. long, 12s. gross; Hurness's electric-bells, 2s. 6d. each, 24s. doz.; pocket Kodaks, new 15s. each; "T" hand camera, £3; 1 21s. perfume-fountain, 10s.; 1 42s. perfume bottle, 21s.; 12 1s. antistiff, 6s. 9d.; bath-brushes, long handles, 10s. seltzogenes, 8-pint size, wire-covered, nickel tops, 14s. each 10s. pear-shape carboys; offers wanted. VINCENT, 460 Holborn, London.

### WANTED.

**Camwal** shares. Lowest price to LAKEMAN, Chemist, Molton.

**Camwal** shares. A. O., Box 75, Sell's Advertising Offices, London.

**Camwal** shares. Lowest price to DAVIES, Chemist, 93 Grove N.

**B. & C. D. D.** Diary for 1897; must be clean. NEAL, 75 York Street, wood.

**Eight** 40-oz. ointment-jars, blue. KNOWLES, Chemist, 219 Road, Hull.

**One No. 2** Ross-Zeiss Aristigmatic lens, F. S. Series, 1111 RIDLEY, Carlisle.

**20** £1 Camwal shares, or 2 £10 shares. Apply, W. BROWN, 2 Well Street, Hackney, N.E.

**Mahogany** counter-case and desk; send lowest price and p. TIMMINS, West Hartlepool.

**Flagg's "Plastics and Plastic Filings,"** and Barrett's "Dental Surgery." TIMMINS, Chemist, West Hartlepool.

**Outdoor Lamp,** with brackets, &c., lettered "Chemist." D. Lupton and lowest price to G. HEATON, Chemist, Ripley, Derbyshire.

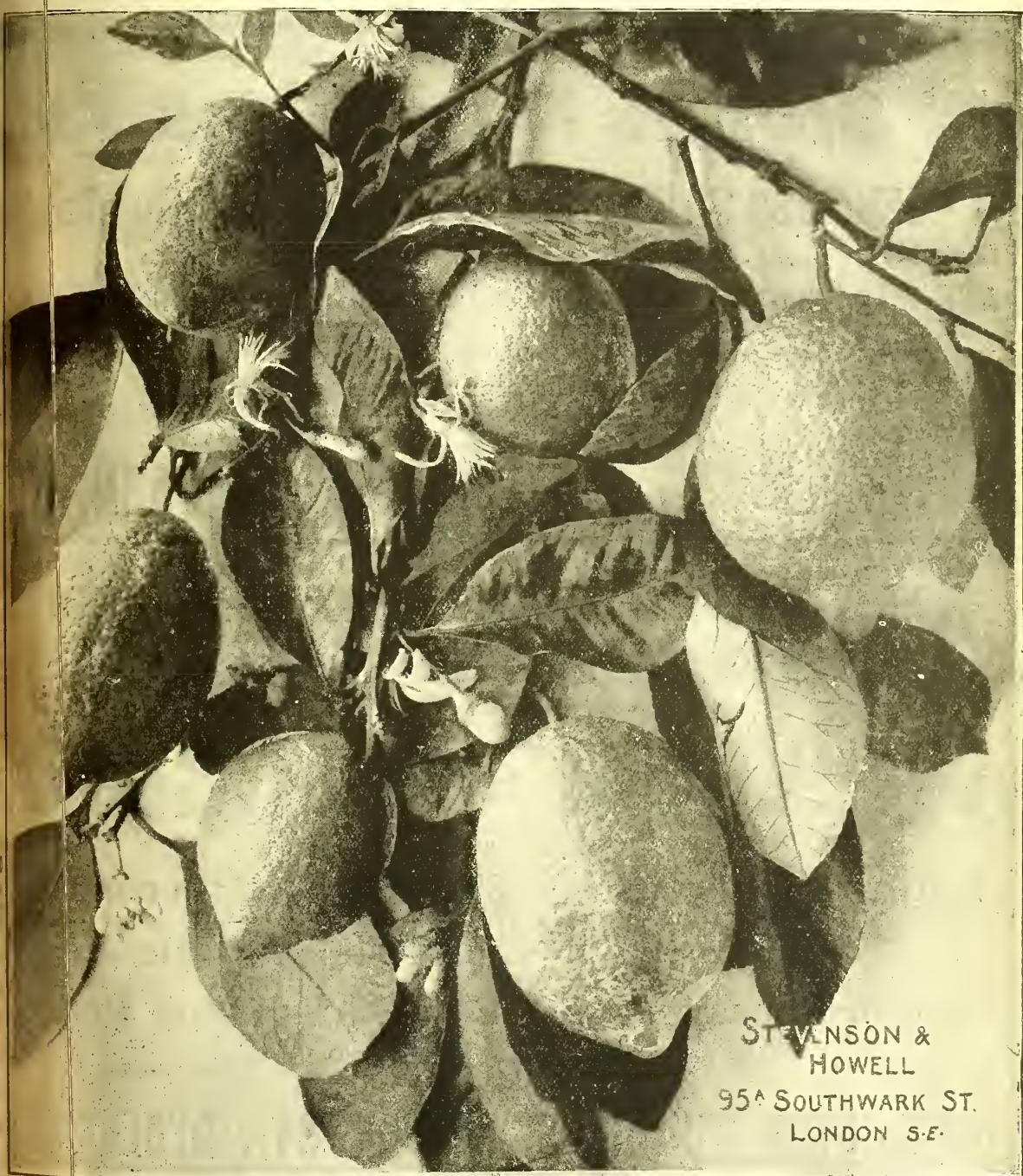
**Indian** brandy; will any Lancashire subscriber favour me with formula for above as sold around Manchester? 222/23, Office C. & D.

**Best** mahogany wall-cases, mirrors, recess glass-labelled shop-rooms, glass shelving for window-enclosure. Particulars, by letter, READING, Sidecup, Kent.

**Newth's "Inorganic Chemistry,"** Reynolds's "Organic Chemistry," Green's "Botany," vol. i., Whiteley's "Chemical Calculations," "Latin Grammar"; secondhand, cheap. BOWDEN, 1 King's College Road, N.W.

— STEVENSON & HOWELL'S —  
 "SELECTED" OIL OF LEMON

Perfectly Genuine hand-pressed Oil, containing the full percentage of Citral, and Free from any Adulteration of any kind.



This the page in "The Chemists' and Druggists' Diary, 1897," voted to contain the most attractive illustration. "The lemons are a touch of Nature; they speak of purity and genuineness."



Telegrams—“PHARSALIA.”

Telephone No. 2759 (Gerrard).

# JOHN SANGER & SONS

DEALERS IN

Proprietary Articles, Druggists' Sundries, Perfumery, Mineal Waters, Lozenges, Surgical Instruments, Photographic Apparatus and Sundries, &c., &c.,

HAVE  
TAKEN

## Stands Nos. 134 & 135

AT THE

### CHEMISTS' EXHIBITION, Covent Garden

August 16 to 20,

AND WILL SHOW A GOOD ASSORTMENT OF ALL KINDS OF SUNDRIES.

Their Town and Country Representatives and one or more of the Principals will be in attendance each day.

WAREHOUSE AND SHOWROOM—

## 2 WINSLEY ST., OXFORD ST., LONDON, W.

### CHEMISTS' EXHIBITION, 1897.

#### Stand No. 11.

# WILLIAM + TOOGOOD

WILL EXHIBIT A CHOICE COLLECTION OF

Bottles for the use of Chemists and Perfumes,  
Specialities in Druggists' Sundries,  
Perfume Sprays, Toilet Bottles, Smelling Bottles,  
AND OTHER NOVELTIES OF INTEREST TO THE TRADE.

## BURLINGTON BUILDINGS, HEDDON ST., REGENT T. LONDON, W.

New Price List, containing upwards of 1,100 illustrations, mailed upon application.

# LYNCH & CO., LIMITED

Beg respectfully to inform their friends and the Trade generally that their **Exhibit No. 3**, in the forthcoming Chemists' Exhibition, is situated in **Avenue A**, within a few paces of the **Central Entrance**. Competent Assistants will be in attendance during the continuance of the Exhibition, prepared to afford any and every information which enquirers may need.

## REDUCED PRICES

OF

### Sitzogenes & Seltzogene Powders.

	2-Pt.	3-Pt.	5-Pt.	8-Pt.	
SEIZOGENES (Lynch's), each (Manufactured in Paris) }	—	7/-	10/6	15/-	Net monthly a/c.
SEIZOGENE POWDERS (English Materials) 12 charges in box, per doz. boxes }	12/6	13/6	18/6	27/6	„ „ „

**LYNCH & CO., LTD.**

ALDERSGATE STREET, LONDON, E.C.

# THE CHEMISTS' EXHIBITION,

London, August 16th to 20th, 1897.

---

# WYLEYS, LIMITED

*Manufacturing Chemists,*

## COVENTRY.

---

We shall be fully and personally represented, and pleased to meet our friends,

**EXHIBITION STANDS, Nos. 75 & 80**

---

### PHARMACEUTICAL PREPARATIONS:

Standardised Tinctures.

Gelatine Capsules and Perls.

Glycerine Tinctures.

Patent "Duraplastic" Horse Pills

Fluid and Solid Extracts.

Petroleum Emulsion.

Compressed Pellets.

Cod Liver Oil Emulsion.

Pearl-Coated Pills.

Extract of Malt and Combinations

Gelatine-Coated Pills.

Medicated Wines.

---

**PACKED GOODS AND SPECIALITIES.**

# DON'T MISS

The opportunity of seeing Specimens of all the latest Animal Products.

We have made a SPECIAL SELECTION of the various Glands in the raw state, which will be on view at the CHEMISTS' EXHIBITION.

We are also showing several New Lines, which give the Retailer a handsome profit, are good sellers, and give your customers satisfaction.

WE INVITE YOU TO CALL AT

# ARMOUR'S STAND, NO. 50,

IN FRONT RANK AT LEFT OF MAIN ENTRANCE.

## ARMOUR & COMPANY (Chicago), LONDON, S.E.

Digestive Ferments. Extracts of Beef. Desiccated Animal Substances.

## The Chemists' Exhibition,

. . . COVENT GARDEN, . . .

**GRAND SALOON, TABLE No. 143.**



## B. KÜHN, 36 St. Mary-at-Hill, LONDON.

**CHINCOL.**—The most powerful, absolutely non-poisonous, non-irritant Antiseptic, Disinfectant and Deodorant. Is now offered in the following Preparations:—Pure Powder, Compressed Tablets, Surgical Dressings, Dusting Powders, Ointments, Soaps (Medicinal, Veterinary, and Toilet and Shaving), &c. Also Crude Chinosol Granular, Crude Chinosol Powder F, and Chinosol Disinfecting Powder for Inodorous Disinfection.

### FURTHER EXHIBITS.

#### COCHI-SAL. CAPSULES.

(Colchicine Methyl Salicylate.)

#### TANNALBIN.

(Knoll.)

#### ICHTHALBIN.

(Knoll.)

#### DIURETIN.

(Knoll.)

#### FEROPYRINE.

#### ETHYL CHLORIDE.

(Dr. Bengué.)

#### ANESTILE.

(Dr. Bengué.)

#### ANTI-DIPHTHERITIC SERUM.

(Ruette-Enoch.)

#### PAPAI

This ideal purely Vegetable Digestive Ferment, thanks to FINKLER, its extremely reliable and energetic properties, has secured a permanent success in the treatment of all kinds of Dyspepsia, also as a local application for the prompt removal of false membrane in Diphtheria, with or without the addition of antiseptics. It is offered now in the following Preparations:—Powder, Pills, Tablets, Lozenges, and in the form of Liquors in combination with Acid Glycerine (Papain Elixir), Iridin, Euonymin, Bismuth, Cascara Sagrada. PAPAIN-FINKLER, through the many years since its introduction, has proved itself to be an uniform product. It is also guaranteed to be purely vegetable and free from any adulteration with Pepsin, &c.

**Samples, Literature, and Prices**

FREE FROM

**B. KÜHN, 36 St. Mary-at-Hill, LONDON.**



Telephone  
No. (4608) Exch.

“Umney  
Layman &  
Wright, London.”

# TRADE NOTICE.

## **CHEMISTS' EXHIBITION**

AT

**COVENT GARDEN,  
LONDON,**

**August 16 to 20, 1897**

---

**THE UNDERSIGNED ARE EXHIBITORS.**

---

**See STAND No. 55**

*See also Partner in Firm at Exhibition.*

---

---

**WRIGHT, LAYMAN & UMNEY,  
SOUTHWARK, LONDON.**

OUR STANDS ARE

**121 & 122**

Chemists' Exhibition, August 16 to 20.

**MASON'S EXTRACT of HERBS.**  
**MASON'S WINE ESSENCES.**  
**MASON'S COFFEE ESSENCE.**

*Kindly pay our Stall a visit.*

**NEWBALL & MASON, NOTTINGHAM.**

THE  
**BIRKEFELD FILTER CO., LTD.**

121 OXFORD STREET LONDON, W.,

Beg to announce that a representative collection of their well-known Filters for Household, Laboratory, and Manufacturing purposes will be shown in working order at the forthcoming

**CHEMISTS' EXHIBITION.**

**STAND 125.**

• • • •

**STAND 125.**

# Idris Royal Table Waters

THE PUREST AND THE BEST.



## CHEMISTS' EXHIBITION,

***Covent Garden Theatre, London, August 16-20.***

IDRIS & CO., Limited, will be pleased to see Chemists at their **STALL, No 18**, where they will be exhibiting their ROYAL TABLE WATERS, and other Specialties of special interest to members of the Trade.

IDRIS & CO., Limited, also invite Chemists to inspect their Factory at Camden own, which is believed to be the most complete and best equipped Mineral Water Facty in the World.

***TICKETS FOR THE EXHIBITION WILL BE SENT ON APPLICATION.***

**IDRIS & CO., Ltd.,**

Camden Town, London; Oldham Street, Liverpool; and Coleman Street, Southampton.

## THE DIRECTORS

OF

**C.A.M.W.A.L.**

CHEMISTS' EXHIBITION ASSOCIATION LIMITED.

BEG TO ANNOUNCE

THAT THEIR VARIOUS MANUFACTURES &amp; NOVELTIES

WILL BE ON VIEW AT THE

**CHEMISTS' EXHIBITION***to be held from the 16th to the 20th of August, 1897,*

AT THE

COVENT GARDEN THEATRE, W.C.

.....

**THE ROYAL BOX**

Has been secured in order to provide accommodation for all Chemists who may favour "CAMWAL" with a visit.

~~~~~

**TICKETS FOR ADMISSION TO THE EXHIBITION WILL BE FORWARDED FREE OF CHARGE**

ON APPLICATION

To the Secretary, 45 Gifford Street, Caledonian Road, London, N.

**NOTICE! CHEMISTS' EXHIBITION.****Fleming's Oil & Chemical Co.'s, Ltd.****STAND NO. 156 IN THE GRAND SALOON.**

You are cordially invited to inspect our Stand at the above.  
We are satisfied you will do well to reserve your orders until you have seen our Sample and  
Price List of Specialities.

**MIKADO MOTH PAPER.**

Specially adapted for Folded Cloths, closely-packed  
articles, &c. 1s. per box.

**ALABASTRINE TABLETS.**

For placing in Wardrobes, Chests, Cupboards, &c.  
1s. per box.

**CRYSTALLISED CAMPHYLENE.**

For scattering under Carpets, into Crevices, amongst  
Furniture, &c. 1s. per tin.

**AMMONIATED  
CAMPHYLENE  
CREAM.**

A preparation of unequalled value for Toilet  
Bath, and General Purposes. It is an entirely new  
and unique preparation, possessing great  
mollifying and invigorating properties.

**CHEMISTS SHOULD STOCK THESE. THEY ARE AN ATTRACTION AND SET OFF TO THE COUNTER OR SHOWCASE.**

Procurable through all Wholesale Houses, or direct from the Sole Manufacturers—

**FLEMING'S OIL & CHEMICAL CO., LTD., 101 LEADENHALL STREET E.C.**

**CHEMISTS'  
EXHIBITION,  
33 Stand.**

**E. A. HOLLOWAY,  
A.P.S.,**

**COCA WINE**

MANUFACTURER,

Will be in attendance for the  
purpose of appointing Agents  
for

|                                   |         |     |              |      |
|-----------------------------------|---------|-----|--------------|------|
| HOLLOWAY'S Coca Wine              | ... ... | 2 9 | ... per doz. | 33/- |
| " Coca Wine                       | ... ... | 1/6 | ...          | 18/- |
| " Coca Elixir                     | ... ... | 4/6 | ...          | 54/- |
| " Coca Elixir                     | ... ... | 2 6 | ...          | 10/- |
| " Coca Lozenges                   | ... ... | 2/- | ...          | 24/- |
| " Coca Lozenges                   | ... ... | 1-  | ...          | 12/- |
| " Coca and Kola Wine              | ... ... | 2 9 | ...          | 33/- |
| " Coca and Kola Wine              | ... ... | 1 6 | ...          | 18/- |
| " Coca and Kola Elixir            | ... ... | 4 6 | ...          | 54/- |
| " Coca and Kola Elixir            | ... ... | 2 6 | ...          | 30/- |
| " Kola Wine                       | ... ... | 2 9 | ...          | 33/- |
| " Kola Wine                       | ... ... | 1 6 | ...          | 18/- |
| " Meat and Malt Wine              | ... ... | 2 9 | ...          | 33/- |
| " Meat and Malt Wine              | ... ... | 1 6 | ...          | 18/- |
| " Cinchona Wine                   | ... ... | 2/9 | ...          | 33/- |
| " Cinchona Wine                   | ... ... | 1 6 | ...          | 18/- |
| " Quinine Wine, Reputed Quarts... | ... ... | 15- | ...          | 15/- |

33½ per cent. Discount.

Carriage paid.

**CHEMISTS' EXHIBITION**

**August 16-20, 1897.**

**Stand 123.****JAMES TOWNSEND & CO.**

**Medical Label and**

**General Printers,**

**EXETER and LONDON**

**Please to give us a call, and  
note our**

**SAMPLES OF LABELS OF ALL KINDS**

**ALMANACKS for 1898, &c.,**

*Mitchell's*  
**CASTOR**  
**OIL.**

Chemists visiting the forthcoming  
**CHEMISTS' EXHIBITION**

Are invited to call at

**STAND 91,**

Where

**M'CHELL'S CASTOR OIL**

Will be exhibited in

**BOTTLES, TINS, DRUMS,  
and BARRELS,**

And where Representatives will be  
pleased to give full particulars, with  
Samples and Prices.

**THE UNITED BRITISH CASTOR OIL  
COMPANY, LIMITED,**  
OSBURY ROAD, LONDON, S.E.

**KEEP YOUR**  
  
**OPEN**  
 FOR  
**STANDS 100 & 115**  
 AT  
**Chemists' Exhibition.**

THE MOST COMPLETE SHOW OF  
 ARTISTIC  
**ENAMELLED TUBES**  
 — CONTAINING —  
 Creams, Jellies, Tooth-pastes,  
 Lubricants, &c., &c.

— ELEGANT AND DELIGHTFUL —  
**PERFUMES**  
 WITH  
 Crown Sprinklers, Cut-Glass Bottles, &c.

**PATENT**  
**"REEL" FLY CATCHER**  
 THE NEW MARVINE GELOIDS  
 (Food and Drink).  
 THE STERLING TABLET MACHINE.  
 Small Size. Small Price.

**MARSHALLS, LTD.**  
 27 Red Lion Square, W.C.

# Chemists' Exhibition, 1897.

**STANDS 51 and 52**

WILL BE OCCUPIED BY

# POTTER & CLARKE

WHO WILL EXHIBIT A NUMBER OF

## Chemists' Specialities and Novelties,

ALSO A STOCK OF

### NEW SEASON'S DRUGS,

**CAMOMILE FLOWERS, LAVENDER FLOWERS, &c., &c.**

NEW VEGETABLE REMEDIES AND THEIR PREPARATIONS,

FLUID EXTRACTS AND COATED PILLS.

Potter & Clarke respectfully invite a call at their Stand.

 **TICKETS.**—Friends requiring Tickets should drop us a postcard

**OFFICES:**

**60, 62, & 64 ARTILLERY LANE, LONDON, E.**

---

Six Prize Medals Awarded.

---

# JOHN JAKSON & CO.

Mitcham Steam Distilleries, **WEST CROYDON.**

And at LONDON and PARIS.

---

We shall Exhibit at **STAND 102** at the

## **CHEMISTS' EXHIBITION, COVENT GARDEN THEATRE,**

Samples of our **ESSENTIAL OILS** of this year's crop (1897).

---

**WHITE PEPPERMINT OIL (Non-Rectified).**

„ „ „ (Double Rectified).

**BLACK PEPPERMINT OIL (Non-Rectified).**

„ „ „ (Double Rectified).

„ „ „ (Rectified).

**LAVENDER OIL. CHAMOMILE OIL.**

**ROSEMARY OIL.**

*Also our genuine MITCHAM LAVENDER WATER, distilled from Mitcham Lavender Flowers.*

---

Specimens of Live Plants and Flowers, from which our various Oils are Extracted, will also be Exhibited, thus showing the staple products of our Plantations in Mitcham and the neighbouring district.

**CHEMISTS' EXHIBITION**

DON'T OMIT TO VISIT

**H. & T. KIRBY & CO.'S STAND No. 63, GROUND FLOOR**

AND SEE THEIR ATTRACTIVE NOVELTIES FOR THE WINTER SEASON.

**SPANISH & NEAPOLITAN JUJUBES.** **GLYCERINE FRUIT JUJUBES.** **GLYCERINE FRUIT LOZENGES**  
(GLYCECOLS).**COATED PILLS** in all sizes, shapes and colours.**PRINTED PILLS AND SPECIALLY SMALL-SIZED PILLS** suitable for Proprietary Medicines.**COMPRESSED TABLETS**, Plain and Sugar-coated, at greatly reduced prices.

NOTE THE FOLLOWING SPECIAL OFFER FOR CASH WITH ORDER AS UNDER—

**EIGHT POUNDS of COATED PILLS** (about 70 gross) for **ONE GUINA**.

|                                                                |     |
|----------------------------------------------------------------|-----|
| 2 lbs. Bland's Pills at 2s. . . . .                            | 4 0 |
| 1 lb. Pil. Apertens . . . . .                                  | 2 3 |
| 1 lb. " c. Cal. . . . .                                        | 2 3 |
| 1 lb. " Rhei" Co. . . . .                                      | 2 6 |
| 1 lb. " Hyd. c. Rhei . . . . .                                 | 2 6 |
| 1 lb. Female Pills . . . . .                                   | 2 6 |
| 1 lb. Kirby's Cathartic Pill, equal to Pil. Coloe, Co. . . . . | 5 0 |

£1 1 0

CARRIAGE PAID TO ANY POST TOWN IN  
THE UNITED KINGDOM.

The Assortments may be varied as to quantity of each line provided the order sent amounts to One Guinea.

SEND FOR COMPLETE LIST

**H. & T. KIRBY & CO., Ltd., 14 Newman St., Oxford St., LONDON, N.****R. MANSON,**

75 FORTRESS ROAD, KENTISH TOWN, N.W.

**DRUGGISTS' SUNDRIESMAN**

AND

Manufacturer of all kinds of Elastic Gum  
and India-rubber Goods.

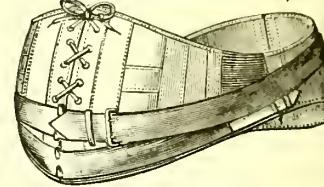
ASK FOR NEW PRICE LIST

AT

STAND 43, CHEMISTS' EXHIBITION.

Stand No. 60, The Chemists' Exhibition.

THE "ABDOMEN" BELT

Telephone No. Hop 4542  
Telegram—"Acme" London."

ESTABLISHED 60 YEARS.

SPECIAL FEATURE—SPECIAL ORDERS BY RETRN.

NEW SAMPLES ON VIEW AT  
Victoria House, Albion Place, Blackfriars Bridge, London.  
Steam Factories—Nottingham and Carlton.**VINCENT WOOD,**Manufacturer  
on the Premises.**SURGICAL ELASTIC**

HOSIERY

TRUSSES  
of every descrip.Abdominal and  
Riding  
Suspensory Bands,  
Chest Expanding Bands  
and Surgical Appliances  
generally.**H. SILVERLOCK**

MEDICAL LABEL &amp; GENERAL PRINTER, ENGRAVER &amp; LITHOGRAPHER,

**92 BLACKFRIARS ROAD, LONDON, S.E.**

CITY OFFICE—79 KNIGHTRIDER ST., DOCTORS' COMMONS, E.C.

**THE CHEMISTS' EXHIBITION**

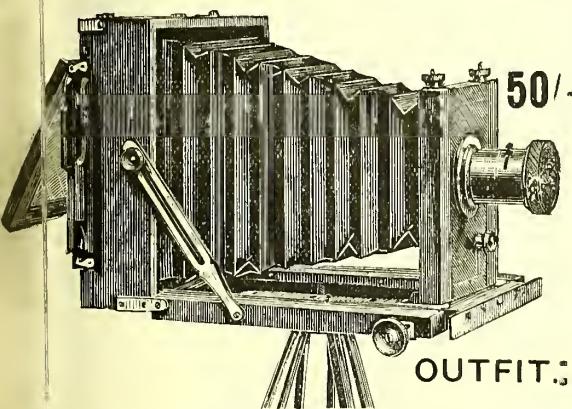
COVENT GARDEN THEATRE, LONDON, AUGUST 16th to 20th, 1897,

**STANDS 29 AND 30,  
ON THE STAGE.**

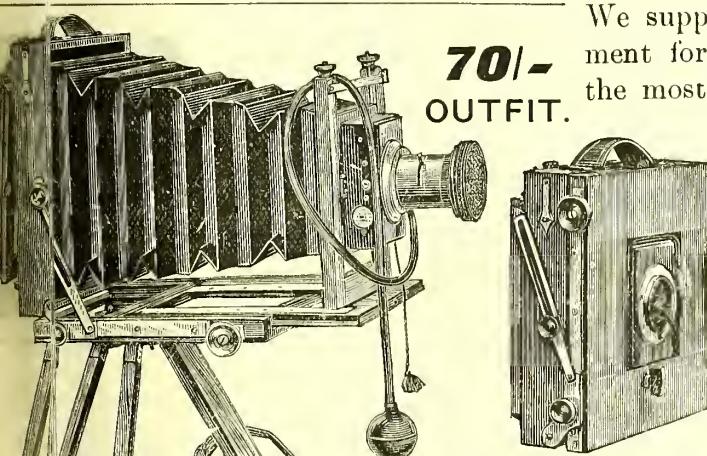
Framed Specimens of Labels and of every description for Chemists' Specialities. Special New Design.

**ILLUSTRATED COUNTER BILLS**  
VARIOUS DESIGNS FOR CHEMISTS' SPECIALITIES.**ALMANACKS FOR 1898.****ASK FOR 1897 EDITION CATALOGUE**  
FANCY STOCK LABELS.

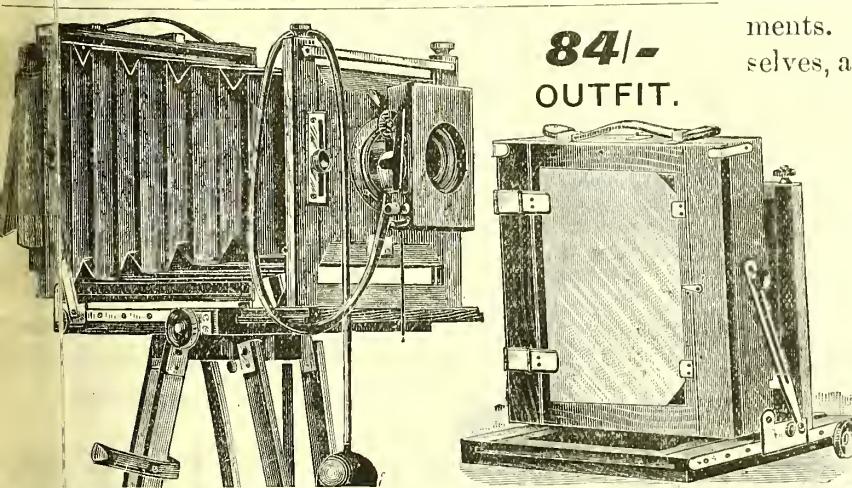
# NEW DEPARTMENT FOR CHEMISTS! PHOTOGRAPHIC APPARATUS



Obtain full information at  
**CHEMISTS'  
EXHIBITION,  
STAND No. 94.**



We supply Chemists with every requirement for Photography (from Plates to the most expensive outfit), also Magic Lanterns of every description. Our representatives and principals will be at our Stand, No. 94, at the Chemists' Exhibition, Covent Garden Theatre, next week, and will have pleasure in giving full information to Chemists thinking of adding this branch to their establishments. Being Chemists ourselves, and having a thorough knowledge of the requirements of the trade, we can speak with confidence from our own experience, which has proved very satisfactory.



Very Liberal Discounts.

*Full particulars from*

**W. BUTCHER & SON, Blackheath, LONDON, S.E.**

L. S. D.

FOR

NOTHING!

**a.**—On the occasion of the opening of our New and Additional Factory we are Giving Away **One Dozen 13½d.** (or equivalent), a Catchy Window Bill, 14×8, accompanied by  $\frac{1}{2}$ -dozen 13½d. "DAISY," for gumming the bill on the window-pane.

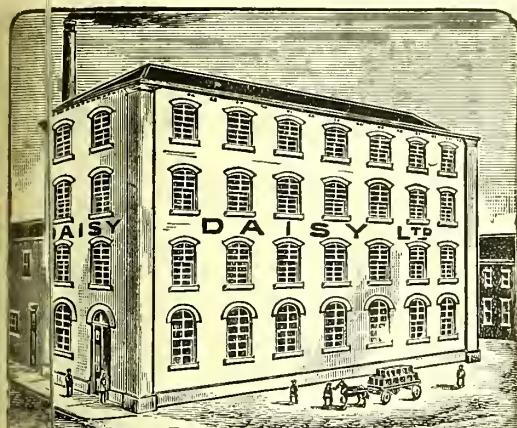
**b.**—With **Three Dozen 13½d.**, three Bills and  $\frac{1}{4}$ -dozen 13½d.; 6 dozen, 6 Bills, and so on.

**c.**—Or, we are Giving 5,000 mutual Demy 8vo (8×5) Circulars, any wording one side, with 3 dozen 1½d.

**d.**—In addition, the First Order with Cash, opened on this day, August 23rd, gets Doubled, no matter of what dimensions.

For Further Concessions see next page, or write for Circular, or visit Stand No. 58 at the Exhibition, and have a "phew" minutes' chat with our representatives.

**DAISY, Limited,** THE TWIN DAISY FACTORIES, LEEDS.



The newest of the two Daisy Factories.

# STAND YOUR CHANCE

For 1 dozen, get 2 dozen;

for 3 dozen, get 6 dozen;

for 12 dozen, get 24 dozen!!

We give the Chemist an article he can *Sell*. We guarantee him a good profit. We see no man takes that profit away. We vigorously advertise. Daisy sells like ripe cherries, and again and again have we been compelled to extend our borders. We have recently added another factory to our already large premises, and think the occasion worthy a little ceremony of practical nature. In the first case, we shall give our employés on this date a substantial treat. For our customers we have arranged the following various considerable concessions, which will be allowed on this day only:—

The first *Order opened* with cash enclosed will be *doubled*. The letter-box will be opened in the presence of the Governing Director, on Monday morning, August 23rd. The topmost letter opened containing order, with cash enclosed, will receive double the quantity ordered, carriage paid, and a settled note for the lot. A short while ago, a retail chemist (or shop) ordered £40 worth of Daisy. Were he to again order this quantity, and be fortunate in having his order the first opened on the opening day, he would receive on best terms £80 worth, retailing over the counter for £170, for his remittance of £40.

For every dozen  $13\frac{1}{2}d.$  ordered (letter received by us not later than August 23), and cash enclosed with order, we will send 1,000 nicely printed card coupons for free samples, with your own name in bold type printed on each. We will allow 2s. 6d. per 1000 in Daisy powders for the distribution of the coupons from door to door.

OR, should you prefer it, we will send a neat window bill, about 14 by 8, one bill with every dozen, and allow a  $13\frac{1}{2}d.$  box per 100 for gumming same inside the window-pane, and showing three weeks.

OR, to those preferring our mutual advertising bills, we will print 5,000 demy 8vo (7 by 5) on ordinary paper, any wording, on one side, with an order for three dozen  $13\frac{1}{2}d.$  Daisy, or equivalent; cash to be enclosed with order, or will not obtain concession.

OR, should you prefer the gift or loan of a *working figure*, instead of the foregoing, with orders of three dozen  $13\frac{1}{2}d.$  or equivalent (opening day only), with cash enclosed—

1. We will give free, a capital figure, "THE DAISY FOOTMAN." Respectfully raises his hat to every customer opening the door. Lithographed on compressed millboard, lettered in gold.

2. We will loan for three weeks' free use, carriage paid both ways: (a) Policeman, dressed in real clothes, staff in hand, nodding his head; (b) Pleasant-faced Masher, turning his body, and holding a box of "Daisy"; (c) A many-sided Conical Mirror, with an internal revolving bunch of artificial flowers, reflected many times on the different facets (a b c run six hours with each winding); (d) Pneumatic "Daisy" Pugilists, very comic, worked by the shop boy from behind, at intervals during the evening.

OR, last, but by no means least, with 6 dozen  $13\frac{1}{2}d.$  or equivalent (opening day only, cash with order), we will lend for three weeks' carriage paid both ways, the attractive well-got-up Model of our Smart Man Display. It opens its eyes, turns its head, and points to a signboard. Very attractive, indeed, although model only sent, and no display material.

**In Addition** to above concessions the first order, with cash, opened, gets doubled free.

**Be sure to post that we receive your order on August 23. If after this day it will NOT get the opening-day concessions.**

When ordering state which one concession you desire. Every order in addition stands a chance of being doubled free. Goods sent on receipt of order, and Model as early as possible.

COUNCILOR WORMALD, *Director.* | THOS. PEARSON, F.R.G.S., *Secretary.* | Governing Director, JNO. R. ELLIS.

**DAISY, Limited, THE TWIN DAISY FACTORIES, LEEDS.**

# S. M. FRANKENSTEIN & CO.

LONDON & MANCHESTER,

SOLE AGENTS AND CONSIGNEES FOR THE

## PURE SALAD COTTON SEED OIL

and WHITE COTTON SEED OIL (UNION BRAND)

MANUFACTURED BY THE

AMERICAN COTTON SEED OIL COMPANY.

## GENUINE AFRICAN GROUND NUT OILS

{ (MF Brand).

LUCCA & PROVENCE OLIVE OILS (Warranted Genuine).

## GELATINES (Proprietors of the "Calf" Brand).

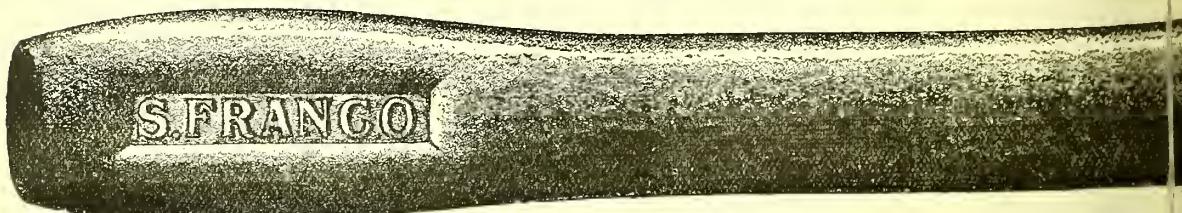
CASTILLE AND INDUSTRIAL SOAP.

## CARMINE (UNRIVALLED SPECIALITY).

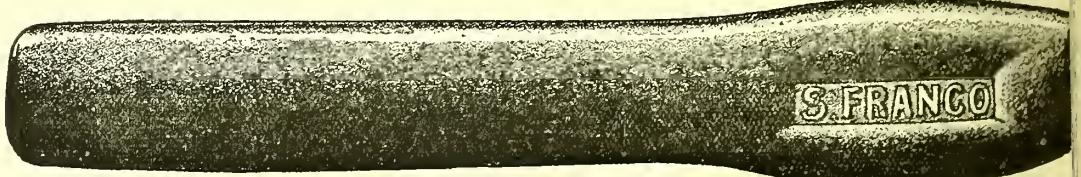
# LIQUORICE JUICE IN STICKS.

FINEST ITALIAN.

GUARANTEED ABSOLUTELY PURE.



Sticks 4½ to the lb. and 8 to the lb.

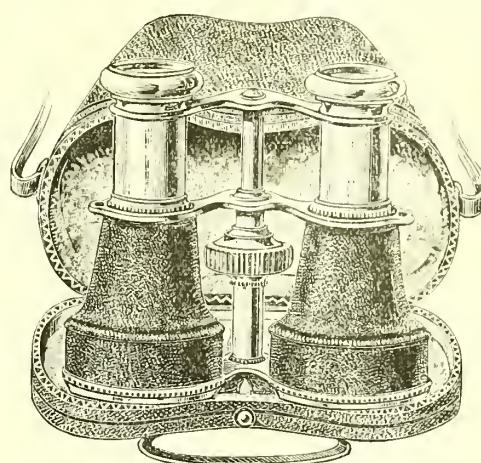
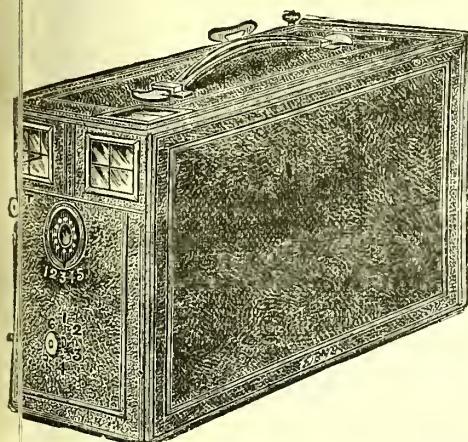


SOLE CONSIGNEES:

**S. M. FRANKENSTEIN & CO.**

Dashwood House, 9 New Broad Street, LONDON, E.C.

## 189 EXCEPTIONAL HAND CAMERA THE "RAMBLER"



Cover in real Morocco, holding 12  $\frac{1}{4}$ -plates, fitted with best Achromatic Lens, with Iris Diaphragm, Time and Instantaneous Shutter, Index of Exposures, &c., 40/- subject.

Ditto, with Rapid Rectilinear Lens, with focussing adjustment and Pneumatic release to shutter, complete, 70/- subject.

Six Lens Aluminium powerful Opera and Field Glass, strongly recommended to tourists on account of its power and extreme lightness, 21/- subject.

*List of Glasses on application.*

**F. DRTON & CO.,** Clerkenwell Optical Works, 142 St. John Street, LONDON, E.C.

Telegraphic Address—"EXCEPTIONAL LONDON."

Makers to H.M. Government.

Established 1834.

The Wholesale and Retail Druggists' Price Book.

NEW EDITION.

Revised according to the latest Edition of the *British Pharmacopœia*, to which are added Tables of Weights and Measures, the Metric System, and other Tables and useful information. To Chemists and Druggists, for shop purposes, buyers, and assistants, this Price Book would be found alike useful, being arranged for both buying and selling entries. Pocket size, bound in Leather, price 3/-.

This Edition has been so arranged that it can be used as a TELEGRAPHIC CODE if desired.

How to Analyse  
Simple Salts:

LIDS AND SOLUTIONS.

Specially intended for  
beginners.

14. BELCHER THORNTON, F.C.S.

8vo Demy, 46 pages,  
price 1/-.

**H. SILVERLOCK,**  
Medical Label & General  
PRINTER,  
Engraver and Lithographer,  
92, BLACKFRIARS ROAD,  
LONDON, S.E.

Analytical  
Exercise Forms,  
FOR  
CHEMICAL STUDENTS.

Arranged by  
H. BELCHER THORNTON, F.C.S.

Price 6d.  
per doz. Forms.

The Clinical Clerks' Guide to Urine Testing.

On 3-fold linen-lined Card, 9 in. by 5 in. Price 6d.

Bellow's Concentric Calculators.

A new and simple mode of ascertaining equivalents without the working of decimals, requiring no writing except the answer. Series A, for the Conversion of Weights and Fluid Measures of the Metric System into English. For the use of Medical Students, Chemists, &c. Price 3/-.

# WESTMINSTER COLLEGE OF CHEMISTRY AND PHARMACY.

Principals: G. S. V. WILLS, F.L.S., M.P.S.; and H. WOOTTON, B.Sc. (Lond.).

Names are now being registered for September 1st.

During the past Session 108 Students of this School were successful in passing their examination.

FEES:—Complete Course, £8 8s.; 6 Months, £12 12s.; 12 Months (Major and Minor), £21 15s.

In addition to the usual College work, "Extra Special Classes" are given, for which there is "No Extra Charge."

N.B.—All Students of this College who take a Six Months' Course and pass the Minor at their first attempt, or who are successful in obtaining a College Medal, will receive **FREE TUITION FOR THE MAJOR.**

The Evening Classes for the Major, Minor, and Preliminary are now being held; full particulars on application.

The PEREIRA MEDAL has this year been awarded to a Student of this College, Mr. W. A. KNIGHT.

## WILLS' POSTAL SYSTEM.

(Established nearly a quarter of a century.)

Apprentices and Assistants will find this course of systematic study the best for obtaining a groundwork in all the subjects. Particulars on application.

For Prospectus and Pass Lists apply to

**E. WALDEN, Secretary,  
TRINITY SQUARE, BOROUGH, LONDON, S.E.**

## SHEFFIELD COLLEGE OF PHARMACY,

118 Princess Buildings, The Moor, SHEFFIELD.

PRINCIPALS—R. B. GREAVES, F.C.S., Gold & Silver Medallist. J. W. TURNER, M.P.S., Medallist & Prizeman.

### JANUARY EXAMINATION.

The Complete Course for the January Examination commences on September 6th.

A Shorter Course, suitable for those gentlemen unable to devote so long a period, will begin on October 4th.

Evening Classes commence on Thursday, September 23rd.

Prospectus, fees, and full particulars of the above Courses will be sent on application.

## METROPOLITAN COLLEGE OF PHARMACY.

Principal—**W. WATSON WILL.**

### WINTER SESSION.

The Course of Lectures for this Session commences on September 1 and terminates on December 31. Students are advised to begin at the commencement of a Course. All Students' work done under direct supervision of the Principal and Demonstrators.

FEES:—Major Course, 6 Guineas; Minor Course, 10 Guineas.

Special Tutorial Course for the October Examinations commences on September 1, and is intended for Students of previous Sessions.

### EXAMINATION RESULTS.

SESSION 1896-97.—Majors, 10; Minors, 79; Apothecaries' Hall, 9. Nearly one-third of the successful Minor Candidates were Students of this College.

**JULY—MAJORS, 3; MINORS, 25.**

For new Syllabus and full particulars apply to  
**Mr. W. S. CARVER, 162 Kennington Park Road, LONDON, S.E.**

# THE LIVERPOOL SCHOOL OF PHARMACY, 6 Sandon Terrace, Upper Duke Street, LIVERPOOL.

Principal—**Mr. R. C. COWLEY, Ph.B.,  
Analytical and Consulting Chemist,**

Assisted by { **Mr. H. B. MORGAN, Ph.C.,  
Mr. WM. NARRAMORE, F.S.**

This School is officially recommended by the Liverpool Chemists' Association, who have appointed the following gentlemen as a Committee of Education:

Mr. M. CONROY, F.C.S. Mr. H. WYATT, J.  
Mr. C. SYMES, Ph.D.

A Tutorial Class for the OCTOBER EXAMINATION begins on August 30th.

The Classes for the JANUARY EXAMINATION begin on September 12th.

Intending Students are advised to apply for Books as early as possible, as there are only a limited number for disposal.

Syllabus, with full particulars, may be had, post free, on application to the Principal.

## PRIVATE AND POSTAL TUITION

London Matriculation, Medical, Dental, Pharmaceutical, and other Preliminaries. Rapid and thorough Preparation. Success guaranteed. Terms moderate.

Students intending to register for Medical Study are advised to lose no time in passing before the new and stringent regulations are adopted.

For Particulars and Terms address—

**A. H. DAWES, 1st B...,  
55-56 CHANCERY LANE, W.C.**

Special Private and Postal Coaching for the Bell and Manchester Scholarships.

Latest Successes (in addition to many previous ones): 1896.—Both Bell Scholarships, and the next two places on the list.

1897.—Both Bell Scholarships.

## The City School of Pharmacy and Chemistry.

Mr. G. E. SKERRY, M.A., Principal.

**27, CHANCERY LANE, E.C.**

SPECIAL NOTICE.—New Courses of Lectures commenced on MONDAY, JULY 5th.

Day, Evening, & Correspondence Classes & Private Tu.

Lecturers:—Mr. F. A. HOCKING, B.Sc. (Lond.), M.P.S.; Mr. W. ROBERTS, M.P.S.; Mr. T. HUMPHREYS, B.A., Int. B.Sc.; Mr. STEWART, M.P.S.

Individual attention guaranteed. Full Prospectus on application. Rapid preparation for all coming Exams. Appliances thoroughly up to date.

### LATEST SUCCESSES:

January Apothecaries' Hall, Biology, 1 presented and passed; Minor, 3 presented, 2 passed; Previous Exam. (Minor), 7 presented, 6 passed; also all sent up for Major, and 8 successes for Apothecaries' Hall.

General Analytical work undertaken on moderate terms. Write or call.

## O'VENS COLLEGE, MANCHESTER. PHARMACEUTICAL DEPARTMENT.

**EAN.**—Professor ALFRED H. YOUNG, M.B., F.R.C.S.  
PROFESSORS AND LECTURERS.

**Phys.**—Professor A. SCHUSTER, Ph.D., F.R.S. Demonstrators and Assistant Lecturers—C. H. LEES, D.Sc.; ALBERT GRIFFITHS, M.Sc.; ERBERT BEATTIE, B.Sc.

**Chertry**—Professor HAROLD B. DIXON, M.A., F.R.S.

**Organic Chemistry**—Professor W. H. PERKIN, Ph.D., F.R.S. Demonstrators and Assistant Lecturers—GEO. H. BAILEY, D.Sc., Ph.D.; ARTHUR HARDEN, M.Sc., Ph.D.; P. J. HARTOG, B.Sc.; EDWARD HAWORTH, M.Sc.

**Medica Medica and Therapeutics, and Pharmacy**—Professor D. J. LEECH, M.D., D.Sc., F.R.C.P. Demonstrators and Assistant Lecturers—R. B. WILD, M.D. M.Sc.; JAMES GRIER, Lecturer in Pharmacognosy—WILLIAM KIRKBY.

**Pharmaceutical Chemistry**—Assistant Lecturer, JAMES GRIER.

**Bota**—Professor F. E. WEISS, B.Sc. Assistant Lecturer—F. W. KELLE, B.A.

## GLASGOW AND WEST OF SCOTLAND SCHOOL OF PHARMACY (CENTRAL SCHOOL OF PHARMACY), 157 ST. VINCENT STREET, GLASGOW

TEACHERS { T. MACKENZIE, Ph.C., M.P.S.  
T. F. BARBOUR, F.I.C.  
A. M. FERGUSON, M.A.

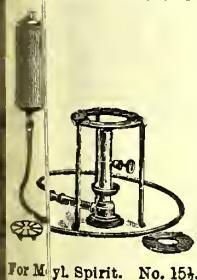
A Tutorial Course for the October Exams. will commence on August 17th.

Speculus, Pass Lists, &c., sent on application.

### APRIL PASS LIST.

Students should note that the General Pass List at Edinburgh has 28 per cent., OURS 57. Three-fourths at their first attempt.

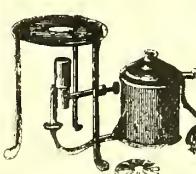
## O. BEREND & CO., CHEMISTS' BUNSEN BURNERS.



A Perfect Substitute for Gas  
More Portable, more Economical than Gas.  
Invaluable where there is no Gas, or where Gas cannot be used.

### THE MOST PERFECT BUNSEN BURNERS.

No Wick. Simple. Indestructible. Absolutely Safe.



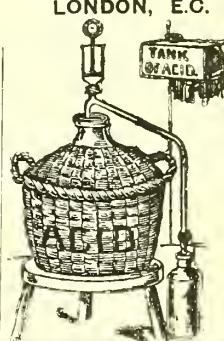
For Benzoline. No 16

DUNEDIN HOUSE,  
BASINGHALL AVENUE,  
LONDON, E.C.

### BEREND'S Rapid-Starting (PATENT) SYPHONS.

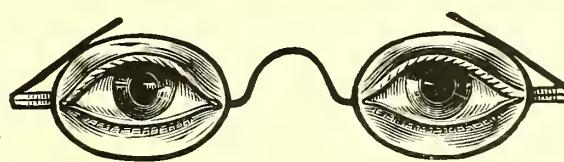
One stroke of the Piston sets the Syphon going instantaneously.

A VERITABLE BOON WHEREVER LIQUIDS ARE HANDLED.  
Made of Tinned Iron, Copper Tinned, Glass Ebonite, &c., and in any size.



## BOTWRIGHT & GREY, MANUFACTURING OPTICIANS (WHOLESALE AND EXPORT ONLY), CLERKENWELL, LONDON, E.C.

Spectacles and Eyeglasses in all metals, Ectacle and Eyeglass Cases, Field, Marine, and Opera Glasses, Telescopes, Barometers, Thermometers, &c., Eyeglass Chains and Cords. We invite the inspection of intending purchasers.



**Sydney Office**—LION & MOSELY, Wynyard Building, Wynyard Sq.

**Melbourne Office**—LION & MOSELY, Apollo Chambers, Flinders Lane.

Repairs, Odd Orders and Surgeons' Refraction Prescriptions accurately prepared by return of post. Special attention is given to Chemists commencing, and instruction is given free in Sight Testing by one of the principals, till efficient, if desired.

# HALL'S WINE SELLS READILY.

PROTECTED PROFIT 25%

Advertising matter free upon application  
to the proprietors—

STEPHEN SMITH & CO.  
(LIMITED),  
BOW, LONDON.

# MARIANI WINE

MINIMUM RETAIL PRICE,  $\frac{1}{2}$  doz. Bots. for 20/-, or 3/6 per single Bottle.

In original cases of 6 dozen, **£10 4s. Od.** net cash,  
with 3 per cent. discount off 6 case lots.

# SANTAL MIDY.

MINIMUM RETAIL PRICE, 3/6 per Bottle.

MINIMUM WHOLESALE PRICE, 33/- per dozen or part of dozen.

In 12 dozen lots, **£18** net cash.

WLCOX & CO., 83 Mortimer Street, LONDON, W.

GABRIEL JOZEAU, 49 Haymarket, LONDON, S.W.

ADAMS'S EXTRACT  
FOR  
HERB BEER  
QUALITY AND FLAVOUR UNIQUE.

Certificate of Analysis from GRANVILLE H.  
SHARPE, F.C.S.

I have submitted to a very careful analysis a sample of ADAMS'S EXTRACT OF HERBS and find it be a highly concentrated preparation composed of judiciously selected herba combination with hops, and in the manufacture of which much skill and scientific judgment have been exercised.

It contains in an admirable and attractive form valuable tonic, stomachic, and dietetic properties, and there is an entire absence of undesirable admixture in any form.

It could prove a valuable acquisition in the world of non-intoxicating drinks, as when used according to directions it produces a beverage of high merit, refreshing and palatable to the taste and wholesome and invigorating to the system.

PROPRIETOR—

**B. ADAMS, MANSFIELD**

When applying for quotations please state approximate requirements in Bulk or Packed.

Only ONE in each Town.

**WINE LICENCES.**—We pay the licence for our agents; we give 33 $\frac{1}{3}$  discount, sample doctors, bill towns, give sole agency and newspaper advertisement; one agent sold 48 doz. in eleven months; send for circular; secure agency White's Gold Medal Coca Wine. S. B. White, A.Ph.S., Leicester.

Why not YOU?

**SELTZOGENE CHARGES**

("MINERAL" BRAND).

**A NEW DEPARTURE.**

**TARTARIC ACID SUPERSEDED**

(See this Journal, 19/12/96, page 880).

**British Materials. Inorganic. No Field for Germ Growths.**  
**BETTER. STRONGER. CHEAPER.**

**THE SELTZOGENE PATENT CHARGES CO.**

**ST. HELENS.**



# TANGLEFOOT SEALED STICKY FLY PAPER

IS MADE  
ONLY BY THE

**O. & W. THUM CO.**  
OF GRAND RAPIDS, MICHIGAN.

WHEN THIS NAME IS ON YOUR FLY PAPER, YOU can rest assured that your neighbour hasn't a better kind, for a simple reason, "HE CAN'T GET IT." IF YOU WANT

THE KIND THAT'S BEST TO BEGIN WITH,  
THE KIND THAT REMAINS THE BEST,  
THE KIND THAT NEVER SPOILS.

Order THUM'S "TANGLEFOOT"

And see that the O. & W. THUM CO.'S name is on each sheet.

To be had of all Wholesalers.

For particulars see pages 20 and 146, August 1st, and page 14, August 7th issues, or write to the Importers:—

**THE ALABASTINE CO., BRITISH, LIMITED, CHURCH STREET, S. LAMBETH, S.V.**  
Telegrams—"Alabastine London."

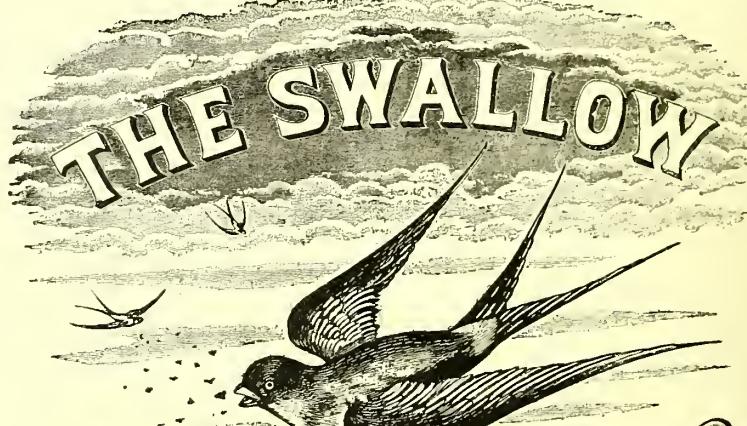
**FORD, SHAPLAND & CO.,** CHEMISTS' AND GENERAL PRINTERS,  
LITHOGRAPHERS, ENGRAVERS, &  
6 GREAT TURNSTILE, HIGH HOLBORN, LONDON, W.C.

**STICKY FLY PAPERS**  
SUPERIOR TO ALL OTHERS.

"DEMON"  
FLY LURE  
(Registered).

"Advertisement"

FLY  
PAPER.



**FLY CATCHER**  
(REGISTERED.)

ALSO  
Chemical  
Prepared  
Fly Paper

Samples and  
on application.

Our Exhibit in CHEMISTS' EXHIBITION, in Covent Garden Theatre, August 16th to 20th, will be at Stand No. 8  
26

# THE GREAT AND MARVELLOUS NSECT DESTROYER.

Entirely different from any other Beetle or Flea Powder.

"VIKO" will kill Cock-roaches.

"VIKO" will kill Moths.

"VIKO" will kill Fleas.

"VIKO" will kill Bugs.

"VIKO" will kill Mosquitoes.

"VIKO" will kill Ants.

"VIKO" will kill all Insects.

"VIKO" will not kill Dogs.

"VIKO" will not kill Cats.



REGISTERED.

Sold in 3d., 6d., & 1s. Tins.

SOLE PROPRIETORS—

**TUNBRIDGE & WRIGHT, READING.**

Manufacturers of the "World-Famed FLY CEMETERY."

"VIKO" as a preventive against Moth is unrivalled. It has no equal. If sprinkled amongst Furs and Clothes instantly destroys any existing Insect Life, and ensures perfect freedom from a return of the pest.

Its effect upon Insect Life is simply marvellous.

TO PREVENT DISAPPOINTMENT, ORDER EARLY.

The World Famous Sticky Fly Paper.

## 'THE FLY CEMETERY'

FREE FROM POISON.

The Original and by far the Best Sticky Fly Paper in the Market.

Annual Sale—MILLIONS.

BEWARE  
OF THE MANY  
SPURIOUS  
IMITATIONS  
IN  
THE MARKET.



STOCK  
A FLY PAPER  
THAT WILL GIVE  
SATISFACTION  
TO YOUR  
CUSTOMERS.

Terms, &c., from

**TUNBRIDGE & WRIGHT, READING.**

North of England Depot—4 Gallowgate, Newcastle-on-Tyne.

French Agency—34 Rue St. Martin, Cognac.

**IMPORTANT NOTICE.**—If any of our customers have any over year's stock of our Fly Cemeteries on hand, we shall be pleased to exchange same for fresh goods free of cost.

TELEGRAMS—"FLIES READING."

## THE FLYODOOMO

### FLY STICKERS

Catches and Hold Them.

They are the Cleanest, Stickiest, and Best Fly Papers in the Market.

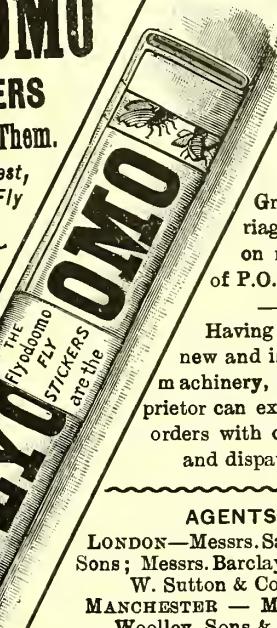
Carefully rolled up so that the Composition cannot possibly get outside.

Large vers should write for samples and Questions.

1d and

1s.

SIZE.



Sample  
Gross, Car-  
riage Paid,  
on receipt  
of P.O. for 5/-

Having fixed up  
new and improved  
machinery, the pro-  
prietor can execute all  
orders with celerity  
and dispatch.

#### AGENTS—

LONDON—Messrs. Sanger & Sons; Messrs. Barclay & Sons; W. Sutton & Co.

MANCHESTER—Messrs. Woolley, Sons & Co.

THIRSK—Mr. W. Foggett.

YORK—Raimes & Co.

LIVERPOOL—John Thompson.

**JOHN H. SMITH  
NEWARK-ON-TRENT.**

COPYRIGHT.



5/- per gross, Carriage Paid. Cash must accompany order.

Samples free, CHRISTY STRONG, READING.

# W. J. BUSH & CO.

(LIMITED),

Distillers of Pharmacopœia and other

## Essential Oils

The following are amongst the most important:—

**DISTILLED AT HACKNEY.**

OIL OF ALMONDS  
" CARDAMOMS  
" CARAWAY  
" CINNAMON  
" CLOVES  
" CUBEBS  
" DILL  
" ORRIS  
" PATCHOULI  
" SANDAL WOOD

**DISTILLED AT MITCHAM.**

OIL OF CAMOMILES  
" LAVENDER  
" PENNYROYAL  
" PEPPERMINT  
" ROSEMARY

**DISTILLED AT GRASSE.**

OIL OF EUCALYPTUS  
" GERANIUM  
" NEROLI  
" ROSEMARY  
" THYME

**PRESSED AT MESSINA.**

OIL OF BERGAMOT  
" LEMON  
" ORANGE

*Direct Importers of all other Essential Oils.*

## SOLE VENDORS FOR THE ENTIRE WORLD

OF ALL

## SYNTHETIC & ARTIFICIAL PRODUCTS

MANUFACTURED BY

Société Anglo-Française des Parfums Perfectionnés, Limited

AUBEPINE (Mayblossom)

Powder, Liquid.

ŒILLET (Carnation)

COUMARIN (Tonquin)

GARDENIA

HELIOTROPINE

OIL OF LEMON (Synthetic Terpeneless S.A.P.)

MUGUET (Lily)

NEROLIN (Orange Flower)

OIL OF ROSES

ROSE MOSS ROSE TEA

TERPINEOL

## VANILLIN.

Works at { ASH GROVE, HACKNEY; MITCHAM, SURREY; GRASSE  
FRANCE; MESSINA, SICILY.

Head Offices and Warehouses—

## ARTILLERY LANE, BISHOPSGATE, LONDON

# CHANGE OF ADDRESS.

THE AGENCY FOR

**COLGATE & CO.'S** (New York)

**SOAPS & PERFUMES**

IS BEEN REMOVED FROM

SNOW HILL BUILDINGS to

**THE BRITISH DEPOT**, 46 Holborn Viaduct, **LONDON, E.C.**

The Trade are invited to write for Price List and Terms.

August, 1897.

**BOORD & SON,**  
DISTILLERS, FOREIGN WINE AND SPIRIT MERCHANTS, AND METHYLATORS.  
ALLHALLOWS' LANE AND BARTHOLOMEW CLOSE, LONDON, E.C.  
Quotations for S.V.R. Methylated Spirit and Finish on application.  
FINEST ORANGE WINE FOR QUININE.

**JAMES BURROUGH, S.V.R.** 65  
O.D. 60  
O.D. **CALE ST., CHELSEA, S.W.**  
and Methylated Spirit  
AT LOWEST PRICES.  
WRITE FOR QUOTATIONS.

**S.V. METH.** **JONES & COMPANY,**  
**COPPERFIELD ROAD,**  
**LONDON, E.**  
LARGEST MAKERS IN THE KINGDOM

We are prepared to supply METHYLATED SPIRIT in  
5-gallon quantities at Lowest Prices.

**REDUCTIONS TO LARGE BUYERS.**  
SAMPLES FREE.

# TOILET SOAPS

**"PEERLESS ERASIC."**—Retail, 4d. per tablet. 1 gross, 3/4 $\frac{1}{2}$  per dozen. 5 gross, 3/4 per dozen. Subject to a special discount of 15%.

**"ERASIC HERB."**—Retail, 3d. per tablet. 1 gross, 2/4 $\frac{1}{2}$  per dozen. 5 gross, 2/4 per dozen.

Cash Discounts—7 days, 5%; one month, 3 $\frac{3}{4}$ %; two months, 2 $\frac{1}{2}$ %.

## GLYCERINE. Double Distilled, 1260 Sp. Gr. Absolutely free.

2-oz. Bottles, Retail 3d. ... 24/- per gross. In Card Boxes. 4-oz. " 5 $\frac{1}{2}$ d. ... 42/-

8-oz. Bottles, Retail 10d. ... 72/- per gross. In Card Boxes. 16-oz. " 1/6 ... 126/- In Cases

Also in Winchester Quart Bottles, and 28-lb. and 56-lb. Tins. Prices on application.

Cash Discounts—7 days, 5%; one month, 3 $\frac{3}{4}$ %; two months, 2 $\frac{1}{2}$ %.

**J. CROSFIELD & SONS, LTD., WARRINGTON.** Estd. 1816.

## EXTRA DOUBLE EAU DE COLOGNE

MANUFACTURED by a DESCENDANT of the ORIGINAL INVENTOR.

FACSIMILE OF LABEL.

EXCELLENT QUALITY.

—  
Insist on the  
URSULA KLOSTER BRAND.



TO BE OBTAINED OF ALL LEADING WHOLESALE HOUSES, OR OF  
**G. GREINER & CO., 10 & 12 MILTON STREET, LONDON, E.C.**

**PRICE'S**  
**GLYCERINE**

ABSOLUTELY FREE FROM ARSENIC AND ALL OTHER IMPURITIES. IS ODOURLESS AND PLEASANT TO THE PALATE

## CACHOU DE LUX.

QUICKEST SELLING CACHOU EVER MADE.  
SELLS AT TASTE!

18/- PER GROSS OF 3d. PACKETS.  
PAY NO MORE.

Made to any Flavour in quantities.

From any Wholesale House; failing this write direct to  
**M. W. CARMICHAEL,**

158 New Bond Street, LONDON, W.

A 14 in. by 20 $\frac{1}{2}$  in. Show Card, in 16 colours, given with each order. One dozen boxes of "Luxuria" Bath Tablets, or  $\frac{1}{2}$  gross "Cachou de Lux."

## SHADEINE.

For Colouring the Hair. Sold in 6 tints, one liquid.

6d. Sample size .. .. 4/- per fl.  
3/6 Large " .. .. 28/-  
10/6 Extra " .. .. 84/-

**SAMPLES** Supply the Trade  
on pretty hanging Showcards  
4/- per doz.

This Popular Article is Largely Advertised and kept at all Wholesale Houses.

Agents Wanted.

[COPYRIGHT]

**ALEXANDRE, 30 WESTBOURNE GROVE, LONDON.**

# JEANCARD, GAZAN & DOUMIN

***Distillers and Importers,***



Her Distillery at

CANNES (France).



Trade Mark

13 St. Mary Axe,

**LONDON, E.C.**

Telegrams: "JEANCARD LONDON."

Telephone Number, 11955.



## ESSENTIAL OILS

OF ALL KINDS.

**MUSK, GIVET, AMBERGRIS, ATTAR-OF-ROSE.**

***Natural Concentrations of Flowers.***

**POMADES, FLORAL EXTRACTS,**

**ROSE AND ORANGE WATER.**

**Ess. Oils of Lemon, Orange & Bergamot.**

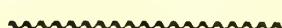
Th NEW SEASON'S NEROLY OIL is now being Distilled.

*Before Ordering Elsewhere Communicate with us.*

We have GENUINE OIL at a FAIR PRICE.

BRANCH DISTILLERIES in the Alps for Peppermint  
and Lavenders.

Also in Africa and Bourbon for Geranium.



**STOCKS KEPT IN LONDON OF ALL STANDARD QUALITIES.**

The Two Most Fashionable Perfumes

MÜLHENS'  
**RHINE VIOLETS**

COMMANDS  
A  
QUICK SALE.

3/-, 8/-, 5/-,  
9/-, 20/-  
per bottle.

Rhine Violet  
Sachets,  
2/- each.

Rhine Violet  
Soap,  
2/6 per tablet,  
or 7/- per box  
of tablets.



LEAVES A  
GOOD  
PROFIT.

MÜLHENS'  
**EAU DE COLOGNE**

STRONGEST  
AND MOST  
LASTING.



COMMANDS A  
HIGHER  
RETAIL PRICE  
THAN  
OTHERS  
SOLD IN ALL  
THE  
USUAL PLACES.

R. J. REUTER, 62 NEW BOND ST., LONDON, W.

Telegrams—"REFRESHING LONDON."



**TERPENELESS OIL OF LEMON.**  
**TERPENELESS OIL OF ORANGE.**

30 times concentrated; the most soluble, best  
Natural Oils extant! Save Alcohol!

**CLAUDE RAYNAUD & C.**  
GRASSE, FRANCE.

**Raw Materials for PERFUMERY, ESSENTIAL OILS,  
CONCENTRATED FLORAL EXTRACTS,  
FLAVOURING ESSENCES for CONFECTIONERS ("DELICIOSA" BRAND),  
COMPOUND PERFUMES for SOAPMAKERS.**

F. DUBOC, Sole Agent for the United Kingdom, DUNEDIN HOUSE, BASINGHALL AVENUE, LONDON E.C.

**SPONGE IMPORTERS.**

**M. PETERSON & CO.**  
6 HOUNSDITCH, LONDON.

FOR HOME, FOREIGN, & COLONIAL MARKETS.

**FOUND DEAD!  
KILLED BY SANFORD'S RAT POISON**

Which is said by Farmers to be the best and most effective ever. Mr. Bliss, Farmer, Helethorpe, Leighton, writes, "That from one found 136 dead Rats next morning." Ald. Ashton, of Huntingdon, killed 70 Rats with a 1/2 box of SANFORD'S RAT POISON. Mr. Carlton, states that he found over 300 Rats killed by using a Poison. Price 6/-, 1/-, 2/-, 3/-, and 5/- per tin. To be had of all Chemists. SANFORD & SON, SANDY, S.E. Wholesalers of Maw, Son & Thompson, Newbery & Son, & Son, and others, London.

roduced.  
using he  
says he  
Esel, of  
S. tin of  
wards

# SOZIO AND ANDRIOLI.

ESTABLISHED A.D. 1757.  
GRASSE (FRANCE).

## NOUVELLE RÉCOLTE ESSENCE DE NÉROLY.

POMMADÉS ROSE ET ORANGE.  
EAUX DE ROSES ET DE FLEURS D'ORANGER.

## NOUVELLE SPÉCIALITÉ. EXTRAIT ROYAL AMBRÉ.

# FRENCH PERFUMES

OUR WELL KNOWN AND VERY SUPERIOR COMPOSITIONS

STOCK KEPT IN LONDON.

Sole Agent MR. FREDK. BOEHM 16, JEWRY ST. LONDON. E.C.

GURANTEED TO CONTAIN ARSENIC.



L. BRAGER, 356 CITY ROAD, LONDON, E.C.,

SOLE AGENT FOR  
BERGMANN & CO., DRESDEN,  
PERFUMERS AND TOILET SOAP MANUFACTURERS.

SPECIALITIES:

|                                                                                  |                         |                |
|----------------------------------------------------------------------------------|-------------------------|----------------|
| No. 406. White and Rose Soap, 3 ounces each piece                                | ..                      | per gross 13/- |
| " 416, White Almond Soap, 3 "                                                    | in tin<br>foil paper .. | 16/-           |
| " 417, Ditto ditto ..                                                            | ditto ..                | 27/-           |
| " 696-8, Lanolin, Glycerin, Vaseline, superfatted Soap                           | ..                      | 15.6           |
| " 412 &c. Cold Cream ..                                                          | ..                      | 16 6           |
| " 711, Best Flower Toilet Soap, 3½ ounces, oval shape, in<br>different scents .. | ..                      | 17/6           |
| " 658, Ditto ditto flat shape ditto ..                                           | ..                      | 17/6           |
| " 658A, Ditto 3 ounces ditto ditto ..                                            | ..                      | 16/-           |
| BUTTERMILK COMPLEXION SOAP, 3½ ounces each piece ..                              | ..                      | 17 6           |
| BUTTERMILK COMPLEXION SOAP, IN BALLS ..                                          | from 19/- ..            | to 26/-        |
| DOUBLE EXTRAIT PARFUME in bottles of 18 ounces weight,<br>in all scents ..       | ..                      | 6/-            |

Perfume in neat bottles from 1 6/- per dozen upwards. Also Soaps and  
Perfumes at lower and higher prices. Also, as advertised in different papers,  
Bergmann's Lily-Milk Soap, sale price, 6d. per piece.

## BRECKNELL'S

PRIZE  
MEDAL.

Recommended by  
Eminent Medical Men.

SKIN

Unscented,  
yet  
Sweet as a Rose.

SOAP.

Although low in price, it ranks with high-class  
soaps, and is altogether the best extant for  
producing a Clear and Healthy Skin.

The longer it is kept the more it improves and increases in value.  
LIBERAL TERMS TO THE TRADE.

BRECKNELL, TURNER & SONS, LIMITED  
To Her Majesty, &c., &c.

31 HAYMARKET, LONDON.  
ESTABLISHED 1802.

**S. MAW, SON & THOMPSON'S**  
**BEST QUALITY**  
**TOOTH BRUSHES**  
**72/- per Gross.**



**Each Bearing Trade Mark and  
Warranted.**



**NO CHARGE FOR STAMPING WITH NAME OF  
CUSTOMER, WHEN NOT LESS THAN 1 GROSS OF ANY  
PARTICULAR BRAND ARE ORDERED.**

**MAW'S  
TOOTH PASTES**

---

**WHITE ROSE**  
12/- & 20/- per doz.

**RED or WHITE**  
**CHERRY,**  
3/9 & 7/-

**Carbolic**  
3/9 & 7/-

**Arecanut**  
3/9 & 7/-

**Aromatic**  
8/6

**Camphorated**  
3/9 & 7/-




**S. MAW, SON & THOMPSON, LONDON**

Telephone Number, Bank 852.

Telegraphic Address—CHEMUS LONDON.

## ADVERTISERS' AND BUYERS' REFERENCE LIST AND INDEX TO ADVERTISEMENTS

## INDEX TO ADVERTISEMENTS APPEARING IN THIS ISSUE.

| Foot of Page                                           | Foot of Page                                 | Foot of Page                        | Foot of Page                                |
|--------------------------------------------------------|----------------------------------------------|-------------------------------------|---------------------------------------------|
| Acetone Surgical Appliances (n.) 64                    | Dawes, A. H. 22                              | Kent, G. B., & Sons 51              | Sanford & Son 32                            |
| Adams & Son 25                                         | D. C. L. Malt Extract 74                     | Kirby, H., & T., & Co. (Lim.) 16    | Sanger & Sons 4                             |
| Adis 68                                                | Diamond Emery Co. 51                         | Kirkpatrick, Barr & Guthrie 46      | Sanitas, The, Co. (Lim.) Text 232           |
| Alabama Co. (Lim.) 26                                  | Droege, W., & Co. 72                         | Knowles & Phillips 292              | Savory & Moore 60                           |
| Alexander 30                                           | Duncan, Flockhart & Co. 44                   | Kühn, B. 7                          | Saxlehnor, Andreas 59                       |
| Allen & Burbarys <i>Front Cover</i>                    | Dussek Bros. & Co. 69                        | Levermore A., & Co. 72              | Scottish Acid Co. (Lim.) 46                 |
| Anglo-American Drug Co. 52                             | Edwards, W., & Son 68                        | Levy, A., & Thomas 54               | Scott's, Dr., Pills 51                      |
| Appolin Co. (Lim.) <i>Front Cover</i>                  | Elherfeld Farbenfabriken 48                  | Liebig Co. 37                       | Seltzogene Patent Charges Co. 25            |
| Armour Co. 7                                           | Elliman, Sons & Co. <i>Back Cover</i> 22     | Liverpool School 22                 | Sheffield College of Pharmacy 22            |
| Austin Co. 62                                          | Ellis & Sou. <i>Text</i> 232                 | Lloyd, T., & Co. 47                 | Silverlock, H. 16, 21                       |
| Baiss B. 49                                            | English Diastatic Malt Extract Co. (Lim.) 40 | Lofthouse & Saltmer 48              | Singleton & Cole (Lim.) 54                  |
| Barnet Foster 57                                       | Eschmann Bros. & Walsh 66                    | Lorenz, H. 72                       | Smith, J. H. 27                             |
| Barron & Sons 44                                       | Evans, Lescher & Webb 50                     | Liineburger Wachsbleiche 67         | Smith, S., & Co. 24                         |
| Beebs T. 52                                            | Exchange Column <i>Col. Supp.</i> 5          | Lynch & Co. (Lim.) 5                | Snow, Dr. H. 73                             |
| Bentley, & Son 66                                      | Fennings, Alfred <i>Outside Cover</i> 73     | Malcolm & Co. 73                    | Snowdon, Sons & Co. (Lim.) 70               |
| Berdo Co. <i>Col. Supp.</i>                            | Fentiman & Co. 73                            | Manson, R. 16, 66                   | "Solazzi" 54                                |
| Berend, & Co. 23                                       | Ferris & Co. 38                              | Marshalls (Lim.) 13                 | Southall Bros. & Barclay <i>Back Cover</i>  |
| Berket Filter Co. (Lim.) 9                             | Fink, F. & Co. 72                            | Maryne, O. (Lim.) 55                | Southwell, Chas., & Co. 60                  |
| Blonde & Co. 43                                        | Fleming's Oil and Chemical Co. (Lim.) 12     | Ma-to (Lim.) 54                     | Sozio & Andrioli 33                         |
| Boehm 46                                               | Fletcher, Fletcher & Co. Text 292            | Maw, S. Sou & Thompson 34           | Spurway & Co. 68                            |
| Boord 29                                               | Ford, Shapland & Co. 26                      | May & Baker (Lim.) <i>Cover</i> 34  | Squire & Sons 42                            |
| Botwirr & Grey 23                                      | Formalin Hygienic Co. (Lim.) 71              | May, Roberts & Co. <i>Cover</i> 72  | Stevens, P. A. 72                           |
| Bovril (m.) 43, 53                                     | Frankenstein, S. M., & Co. 20                | Melin, C. 62                        | Stevenson & Howell 3                        |
| Brager 33                                              | Fry, J. S., & Sons 60                        | Metropolitan College of Pharmacy 22 | Strong, C. 27                               |
| Brashy Hinchliffe (Lim.) 58                            | Geog, G. 73                                  | Millar, A., & Co. 22                | Thiellay, E. H. 73                          |
| Breckin Turner & Sons 33                               | Glasgow and West of Scotland School 23       | Mills, R. M. <i>Text</i> 292        | Thornton-Pickard Co. 72                     |
| Breitfels (m.) 63                                      | Goodall, Backhouse & Co. 73                  | Moss, J., & Co. <i>Text</i> 292     | Tomlinson, Thomas, & Sons <i>Col. Supp.</i> |
| Brook Barker & Co. 53                                  | Green, E. 72                                 | Mulhens, F. 32                      | Toogood, W. 4                               |
| Bruck R. 72                                            | Greiner, G., & Co. 30                        | Newball & Mason 9                   | Tower Tea (Lim.) 60                         |
| Brunn Mond & Co. (Lim.) 45                             | Guy's Tonic Co. 51                           | Norrenberg, J., & Co. 46            | Townsend, J. 12                             |
| Burgoy P. B., & Co. 42                                 | Harescough, B. B., & Co. 68                  | Oppenheimer, Son & Co. (Lim.) 39    | Tunbridge & Wright 27                       |
| Burrou James 29                                        | Harvey, S. 33                                | Orridge & Co. <i>Col. Supp.</i> 39  | Tyler, P. 55                                |
| Burton Wellcome & Co. 41                               | Hayward-Tyler & Co. 55                       | Owens College (Pharm. Dept.) 23     | Tyler, Thomas, & Co. 48                     |
| Bush, W., & Co. 42                                     | Hebden, W. C. 69                             | Pavia, Felix.                       | United Alkali Co. (Lim.) 70                 |
| Buine for Disposal <i>Col. Supp.</i>                   | Henry, T. & W. 44                            | Peake, Allen & Co.                  | United British Castor Oil Co. (Lim.) 13     |
| Butche V., & Son 17                                    | Hertz & Collingwood <i>Text</i> 292          | Petersen, M., & Co.                 | Vaccine Association (Lim.) 67               |
| Cadburys, C. & Co. 69                                  | Hewlett, C. J., & Sou. 49                    | Pindar, J. W., & Co.                | Van Houten 60                               |
| Carver, C., & Co. 59                                   | Hickission, J. 43                            | Poppelreuter, W. 32                 | Vi-Cocoa (Lim.) 61                          |
| Carbon Acid Gas Co. 30                                 | Holloway, E. A. 12                           | Poths, H., & Co. 62                 | Wand, S. 72                                 |
| Carmichael, M. W. 53                                   | Horlick & Co. (Lim.) <i>Text</i> 292         | Potter & Clarke 14                  | Washington Chemical Co. (Lim.) 49           |
| Chemla Aerated and Mineral Water Association (Lim.) 10 | Iron and Steel Plant Co. (Lim.) 67           | Raphael, J., & Co. 66               | Westminster College 22                      |
| Chasebridge Manufacturing Co. 42                       | Isaacs, L., & Co. 54                         | Raynald, Claude, & Co. 32           | Whitbread & Co. (Lim.) 56                   |
| Christy, & Co. 73                                      | Jackson, J., & Co. 15                        | Rendell, W. J. 65                   | Whittaker & Co. 23                          |
| City Sool of Pharmacy 22                               | Jeanard, Gazan & Doumin 31                   | Richards, J. M. 29                  | Wilcox & Co. 25                             |
| Clark, & Co. 72                                        | Jones & Co. 29                               | Ringrose & Cobb 72                  | Wiltou & Co. 66                             |
| Cooper Co. 72                                          | Josephs, Philip <i>Col. Supp.</i> 55         | Robare's Aureoline 49               | Wood, V. 16                                 |
| Cox, A. H., & Co. 53                                   | Judd & Manners <i>Col. Supp.</i> 55          | Robinson, B. 58                     | Woodruff, T. 64                             |
| Orosel J., & Sons (Lim.) 30                            | Kemp & Sons 69                               | Robinson's Co. (Lim.) 65            | Wright, Layman & Umney 8                    |
| Carrie, & Co. 66                                       | Kemp & Sons <i>Col. Supp.</i> 55             | Rookledge, F. E. 68                 | Wyleys (Lim.) 6                             |
| Daisy (m.) 18, 19                                      | Kemp & Sons <i>Col. Supp.</i> 55             | Ross & Sons (Lim.) 55               | Yanatas (Lim.) 73                           |
| Darton, & Co. 21                                       | Kemp & Sons 69                               | Royal Dispensary of Edinburgh 23    | Youldon, E. 62                              |

## CLASSIFIED LIST OF ALL ADVERTISERS

## ACE

Boyle, J., &amp; Co., Lim.

## ADVERTISING SPECIALTIES

Corse, J. R. | Harris, J.

## AERD &amp; MINRLS

Apollo's Co.

Bart &amp; Foster

Brashy Hinchliffe, Lim.

Tyle Layward, &amp; Co.

Volo &amp; Aerated Co.

## AER. TED PLANT

(See AIRS AND ESSENCES)

Bart &amp; Foster

Brashy Hinchliffe, Lim.

Tyle Layward, &amp; Co.

Volo &amp; Aerated Co.

## AGENCIES ABROAD

Austrian Drug Co.

Boyle, J., &amp; Co. | Bolts

Goss, J.

Gothic Pharmacie Finck

Kemone, Prosser &amp; Co.

Lent, J. B., &amp; Co. (N.Z.)

Peal, Alice, &amp; Co.

Smith, Sons

Tay &amp; Colleage

## ALLILOIDS

Howe &amp; Sons (Cinchona)

Maclean, J. F., &amp; Co.

Smith, T. H., &amp; Co.

## AMONIA

May Baker, Lim.

Whit. A., &amp; Sons

Woot, Sons &amp; Co.

## APPARATUS

Bennett, Sons &amp; Shears

Berend, O., &amp; Co.

Woolley, J., Sons &amp; Co.

## BAKING POWDER

Goodall, Backhouse &amp; Co.

## BATH &amp; FLESH GLOVES

Mew, S., Son &amp; Thompson

Solpri Bros.

Wood, Vincent

## BATH SALTS

Tidman &amp; Son, Lim. (Sea Salt)

## BEESWAX

Bowdear &amp; Co.

Evans, Sons &amp; Co.

Kemp &amp; Sons

Leonard, T.

Liineburger Wachsbleiche

Shearing, F., &amp; Co.

## BICARB. SODA

Bunnell, Mond &amp; Co., Lim.

Howards &amp; Sons

May &amp; Baker, Lim.

Tyre, T., &amp; Co.

White, Alfred, &amp; Sons

## BIPALATINOIDES

Oppenheimer, Son &amp; Co., Lim.

## BISULFITE PREP.

Hewson, Sutro &amp; Franks

Howlett &amp; Sons

May &amp; Baker, Lim.

Tyre, T., &amp; Co.

## BOOKS &amp; C.

Snow, Dr. H.

Squire's "Companion"

Whittaker &amp; Co.

## BORAX

Howards &amp; Sons

## BOXES

Austin &amp; Co. (Cardboard)

Ayrton &amp; Saunders

Evans, Sons &amp; Co.

Kent, G. B., &amp; Son

Kilner Bros.

Patent Stopper, Box, and

Stamping Co., Lim. (Tin)

Robinson &amp; Sons

Rogers &amp; Co.

Timplate Decorating Co.

## BOTTLES

Ayrton &amp; Saunders

Barrett, R. H.

Brashy &amp; Hinchliffe, Lim.

Bretfitt, Lim.

Gilbertson, H., &amp; Sons

Hearn, Wright &amp; Co.

Isaacs &amp; Co. | Kilner Bros.

Lynch &amp; Co., Lim.

Poths, H., &amp; Co.

Stipendium Stopper Co., Lim.

Toogood, W. | Youldon, E.

York Glass Co., Lim.

## BRUSHES

Addis &amp; Son (Tooth)

Evans, Sons &amp; Co.

Hovenden &amp; Sons

Kent, G. B., &amp; Son

## BUNSEN BURNRS

Berend, Co.

## BUTTER COLR, &amp;c.

Boniton, J., &amp; Co., Lim.

Muller &amp; Co.

Tomlinson &amp; Hayward

## CACHETS

Brager, L.

Christy, T., &amp; Co.

Cooper &amp; Co.

Sangers, J., &amp; Sons

## CACHOUS

Bleasdale &amp; Co.

Harrington, M. W.

Jackson, T.

Lloyd, T. H., &amp; Co.

Raines &amp; Co. | Sen-Sen Co.

Warrick Bros.

## CAMPHOR

Howards &amp; Sons

May &amp; Baker, Lim.

## CSCRA SAGRADA

Anderson &amp; Co.

Duncan, Flockhart &amp; Co.

Evans, Lescher &amp; Webb

Ferris &amp; Co.

Galen Manufacturing Co., Lim.

Harker, Stagg &amp; Morgan

Parke, Davis &amp; Co.

Washington Chemical Co.

White, A., &amp; Sons

## CAPSULES

Burdett, G. B., &amp; Co.

Drooge, Wm., &amp; Co.

Duncan, Flockhart &amp; Co.

Evans, Lescher &amp; Webb

Hooper, B., &amp; Co.

Lloyd, T. Howard, &amp; Co.

Lofthouse &amp; Saltmer

Warrick Bros.

## CHEK TILLS

O'Brien, T.

Stokes, G. R., &amp; Co., Lim.

## CHEST PROTCTS

Liverpool Patent Linet Co.

Lynch &amp; Co., Lim.

Maw, S., Son &amp; Thompson

Newbery, F., &amp; Sons

Schutze &amp; Co.

Solport Bros.

Wood, Vincent

## CHLOR. OF LIMR

Government Sanitary Co.

Hebden, W. C.

National Chemical Co.

Steele, J. C., &amp; Co.

## CHLORODYNE

Davenport (Browne's)

## CHLOROFORM

Duncan, Flockhart

Macfarlan, J. F., &amp; Co.

Smith, T. &amp; H., &amp; Co.

## COCAINE-HYDRO.

Howards &amp; Sons

## COCA WINE

Burrough, J.

Evans, Lescher &amp; Webb

French Hygienic Society

Harker, Slagg &amp; Morgan

Holloway, E. A.

Kemp &amp; Son

Lorimer &amp; Co.

Stephen Smith &amp; Co., Lim.

(Hull's)

White, S. B.

Wilcox &amp; Co.

## COCOA &amp; CHOCOL

Cadbury Bros.

Caffyn's Malto-Carni (Bovril Lim.)

Fry &amp; Sons

Van Houten

Vi-Cocoa (Dr. Tibble's)

## COLLAPSIBLE TUBES

Marshalls, Lim.

Moise, B. F., Lim.

**COD-LIVER OIL**

Allen & Hanburys  
Burroughs, Wellcome & Co.  
Cuthbert, R.  
Davies, Gibbons & Co.  
Evans, Leches & Webb  
Evans, Sons & Co.  
Freudenthal & Co.  
Hewitt, Stagg & Morgan  
Hill, J. & Son  
Kemp & Son  
Loftus & Saltmer  
Lorimer & Cn.  
Moss, J. & Co.  
Morrison, R. & Co.  
Oppenheimer, Son & Co., Lim.  
Smith, T. H. & Co.  
Spratt's Patent (Dog Cakes)  
Scott's Emulsion  
Sonthall, Bros. & Bartay  
Stevenson, H. E. & Co.  
Wright, Layman & Umney

**COMP. MEDICINS**

Allen & Hanburys  
Burroughs, Wellcome & Co.  
Davies, Gibbons & Co.  
Hooper, B. & Co. | Leo & Co.  
Lloyd, T. Howard & Co.  
Parke, Davis & Co.

**CONCENT. LIQRS**

Bales Bros. & Co.  
Davies, Gibbons & Co.  
Fletcher, Fletcher & Co.  
Lloyd, T. Howard, & Cn.

**CONFETIONERY**

Gibson & Sons  
Grest, T., & Co. | Hillaby, J.

**CORKS**

Bingrose & Cobb

**CORN CURES**

Betham & Son  
Gardner, C. | Potter & Clarke

**COTTON WOOL**

Robinson & Sons (Absorbent)

**CRSHD LINSEED**

Evans, Gadd & Co.  
Mumford, G. S.

**CYDER**

Symons, J., & Co., Lim.

**DENTIFRICES, &c.**

Beecham, T.  
Bronnley, H., & Co.  
Hovenden & Sons  
Jewsbury & Brown

**WNTOW, O. & Co.**

Woods, W. (Areca Nut)

**DENTISTRY**

Browning, A. J.  
Fentiman, A. G.  
Fentiman & Co

**"DIMATOS"**

Sonthall Bros. & Barclay

**DISINFECTANTS**

Calvert, F. C., & Co.  
Busek Bros.

**FLETCHER, F. & Co.**

Forrman's Hygienic Co., Lim.  
Government Sanitary Co.

**GRANVILLE, A. & Co.**

Hebden, W. C. | "Izal"

**Jeyes' Sanitary Compounds Co.**

Kay Bros., Lim.

**KUHN, B. (Chino sol. Kresochine)**

Mackey, Mackey & Co.

**MAY & BAKER, Lim.**

National Chemical Co.

**"Nestor" Sanitary Fluid Co.**

Read, Holiday & Co.

**SANITAS, Co., Lim.**

Steele, A. C. & Co.

**THOM'S Disinfectants Co., Ltd.**

Tyler, T., & Co.

**United Alkali Co., Lim.****DOG MEDICINES**

Lloyd, T. Howard

**Spratt's Patent, Lim.****DRUGGISTS' SUN.**

Ayrton & Saunders

**BARCLAY & SONS, Lim.**

Bentley, E., & Son

**BLEASDALE & CO., Lim.**

Burge, Warren & Ridgley

**CURRIE, Wm., & Co.**

Dalley & Wilkinson

**CARTWRIGHT, A. S.**

Evans, Leches & Webb

**EVANS, SONS & CO. (Savars)**

Fordham, W. B., & Sons, Lim.

**HOVENDEN & SONS**

Kay Bros., Lim.

**MARSHALLS, Lim.**

Maw, S., Son & Thompson

**MAY, ROBERTS & CO.**

Molse, B. F., Lim.

**NEWBRY, F., & SONS**

Potter & Sacker

**QNEICH, H. C.**

Sanger & Sons | Schntze & Co.

**SUTHNALL, Bros. & Barclay**

Tidman & Son | Toogood, W.

**WOOD, VINCENT****DRUGS**

Allan, S. & Sons (Grinders)

**BLEASDALE & CO., Lim.**

Davies, Gibbons & Co.

**DIETERICH, EUGEN**

Kuhn, B.

**LOTHOUSE & SALTMER**

Oppenheimer, Son & Co.

**PHILLIPS & CO.**

Poppeler, W. (Grinders)

**REED, W., & CO.**

Stevenson, H. E., & Co.

Wyley's, Lim.

**DYES**

Ayrton & Saunders

**MAPLE SOAP Co., Lim.**

Greiner, G., & Co.

Muhlen, F. | Van Oppen & Co.

**MAU DE COLOGNE**

Farina, J. M.

Greiner, G., & Co.

Muhlen, F. | Van Oppen & Co.

**GINGE**

Boehm, F.

**GRANUL**

Boyle, J. | Fink & Co.

**GRANUL**

**RENT**  
Dunnes  
Lorraine  
Maller  
Tomlin & Hayward  
**UBER GOODS**  
Powell  
arstow  
**SALIN'**  
Macfar  
Smith, H., & Co.  
**SALI'LC ACID**  
Burgoyne, Burbidges & Co.  
Zimmermann, A. & M.  
**SAUCES, PICKLES**  
Goodall, Backhouse & Co.  
Maw, Son & Thompson  
Tyson  
**SCHOOLS, &c.**  
Central (Edinburgh)  
City Sol (Skerry's)  
Davis, J.  
Dawes, H.  
Glasgow School of Pharmacy  
Glasgow University  
Liverpool School  
London Col. of Pharmacy  
Metropolitan Col. of Pharmacy  
Northwood and School  
Nottingham College of Pharmacy  
Owens College (Med. Dept.)  
Owens, George (Pharm. Dept.)  
Royal Dental (Edinburgh)  
St. Mary's Hospital  
Staffordshire College of Pharmacy  
South London School of  
Pharmacy, Linn.  
Westminster College  
**SCIENTIFIC INSTRUMENTS**  
Darton &c.  
**SEA SALT**  
Tidman, Son, Linn.  
**SEEDS**  
Brook, Parker & Co.  
Spratt's tent, Linn. (Bird)  
**SEITZ POWRS**  
Davies, Hobbs & Co.  
Horn & May, Roberts & Co.  
**SELT'GENES**  
Braby, Inchliffe, Linn.  
May, Roots & Co.  
**SERU**  
Green, W., & Co.  
**SHAVING**  
Hovend & Sons (Euxeels)  
Lloyd, A. Co. (A. S. Lloyd's  
Euxes)  
**SHEEP DIP**  
Fletcher Bros & Co.  
Harescoough & Co.  
Joye's Sanitary Compounds Co.  
Kuhn, B. (Kreschne)  
Sanitas Co., Linn.  
**SHOP FITTERS**  
Bowling & Gowler  
Bygrave, J. & W.  
Evans, Sons & Co.  
Josephs, C., & Co.  
Josephs, Phillip  
Treble, G., & Son  
Yates, W. S.  
**SOAP**  
Ayrton & Saunders  
Blondeau et Cie. (Vinolia)  
Bronley, H., & Co.  
Cook, E., & Co.  
Crossfield, J., & Sons, Linn.  
Frankenstein, S. M., & Co.  
Gibbs, D. & W. (Medicated)  
Hingman's Soap Works, Linn  
Jameson, J. (Arsenical)  
Jenkin Sanitary Compounds Co.  
Mackenzie's, Dr. (Arsenical)  
Maypole Soap Co., Linn.  
Muhlen, F.  
Pear, A. & F., Linn.  
Richards, J. M.  
Sanitas Co., Linn.  
Sharp Bros. Soap, &c., Co., Ld.  
Sinclair, J., & Son  
Tidman & Son  
Wright, Layman & Umney  
**SPECTACLES**  
Bordwright & Grey  
Darton, F., & Co.  
Raphael, J., & Co.  
**SPONGES**  
Cohen, I. & M.  
Cresswell Bros. & Schmitz  
Peterson, M., & Co.  
**STARCH**  
Critchley (Gloss)  
Hebden, W. C.  
**STEEL BARRELS**  
Iron and Steel Plant Co., Linn.  
**STOPPERS**  
Austin & Co. (Sprinklers)  
Barnett & Foster | Melin, C.  
Patent Stopper, Box, and  
Stamping Co., Linn.  
Stipendum Stopper Co., Linn.  
**STOVES**  
Clark, S., & Co., Linn.  
**SUGAR**  
Gibee Sugar Refining Co.  
Macfie & Sons  
**SUGAR OF MILK**  
Boehm, Fredk.

**SURGICAL**  
Aerolung Surgical Appliance  
Co.  
Ayrton & Saunders  
Bailey, W. H., & Son  
Barclay, W. & Son, Linn.  
Burge, Warren & Ridgley  
Burgoyne, Burbidges & Co.  
Eichmann Bros. & Walsh  
Ferris & Co.  
Galon Manufact'g Co., Linn.  
Haywood, J. H.  
Ickringill's Hygienic Cloth  
Syndicate, Linn.  
Krohne & Seemann  
Liverpool Patent Lint Co.  
Lynch & Co., Linn.  
Mackenzie, J. F., & Co.  
Manor, R.  
Matto, Linn.  
Maw, S., Son & Thompson  
Oppenheimer, Son & Co.  
Powell & Barstow  
Quelch, H. C.  
Robinson & Sons  
Sanitas Co., Linn.  
Schutze, F., & Co.  
Wood, Vincent  
Woodruff, T.  
**SYPHONS**  
Barnett & Foster  
Bennett, Hinchliffe, Linn.  
Chemists' Aerated and Mineral  
Waters Association, Linn.  
Geraut, E., & Co.  
Idris & Co., Linn.  
Kilner Bros. | Melin, C.  
**SYRUPS**  
Beckett, W., Sons & Co.  
Fletcher, Fletcher & Co.  
(Liquors)  
Stevenson & Howell  
Volcanic Aeration Co.  
**TABLETS**  
Corsan, J. R. (Advertising)  
Davies, Gibbons & Co.  
**TEA**  
Tower Tea, Linn.  
**TEETHING PADS**  
Cartwright, A. S.  
Marriott, E., & Co.  
**TINCTURES**  
Blackwell, Hayes & Spilsbury  
Davies, Gibbons & Co.  
Evans, Sons & Co.  
Hewlett, C. J., & Son  
Lloyd, T. Howard, & Co.  
Moss, John, & Co.  
Parke, Davis & Co.  
Wyleys, Linn.  
**VALUERS AND TRNSFR AGNTS**  
Bordoe & Co. | Brett, F. J.  
Crocker, G. B., & Co.  
Ferguson & Osborne  
Orridge & Co.  
Tomlinson, Thos., & Son  
**VASELINE**  
Chesbrough Co.  
**VETERINARY**  
Bird & Storey  
Day & Sons  
Day, Son & Hewlett  
Elliman, Sons & Co.  
Harvey & Co. | Leng, A., & Co  
Lloyd, T. Howard, & Co.  
Rookledge, F. E.  
Sanitas Co., Ld | Spratt's (Dogs)  
Walker, Troke & Co.  
**TERMOMETERS**  
Ayrton & Saunders  
Bailey, W. H., & Son  
Dartou, F., & Co.  
**TOBACCO & CIGRS**  
Albert Levy & Thomas  
Singleton & Cole, Linn.  
**TOILET**  
Addis, R., & Son  
Ayrton & Saunders  
Beetham & Son | (Lanoline)  
Burroughs, Wellcome & Co.  
Crosfield, J., & Sons, Linn.  
Dee Oil Co., Linn.  
Hovenden & Sons  
Lynch & Co., Linn.  
Malcolm & Co.  
Maw, S., Son & Thompson  
Mow, B., & Son, Linn.  
Piccock's Ovaline Soap Co.  
Quelch, H. C.  
Sanitas Co., Linn. | Co., Linn.  
Sharp Bros. Soap & Perfumery  
Southall Bros. & Barclay  
Squire & Sons  
Tidman & Son, Linn.  
Townsend, J. (Paper)  
**TOOTH PASTE**  
Beecham, T.  
Jewbury & Brown  
Maw, S., Son & Thompson  
Parke, Davis & Co.  
Sutton, O., & Co.  
Woods, M. (Areca)  
**URETHANE**  
Howards & Sons  
**VACCINATION**  
Maw, S., Son & Thompson  
Vaccine Association (Lymph)  
**VALUERS AND TRNSFR AGNTS**  
Bordoe & Co. | Brett, F. J.  
Crocker, G. B., & Co.  
Ferguson & Osborne  
Orridge & Co.  
Tomlinson, Thos., & Son  
**WINE, SPIRITS, BEER, &c.**  
Burgoyne, P. B., & Co.  
Burroughs, J.  
Coleman & Co., Linn.  
French Hygienic Socy. (Coca)  
Goodall, Backhouse & Co.  
Holloway, J. A.  
Miller, A., & Son, (Orange)  
Phillips, J. & Co., Robinson, B.  
Smith, S., & Co., Linn. (Orange)  
Stevenson, H. E., & Co.  
Symons, J., & Co., Linn.  
Warren, A. & J.  
Whitbread & Co.  
Wilcox & Co.  
Wright, Layman & Umney  
Wyleys, Ltd.

**LEIBIG COMPANY'S EXTRACT**  
*J. Leibig*

Quantities of £5 worth now supplied  
direct, carriage paid to any town in  
United Kingdom.

Minimum re-selling prices fixed.

GRINNELL DAVID & CO., Sole Agents, 4 FENCHURCH AVENUE, LONDON, E.C.

**NEPENTHE.***The Safest & Best Preparation of Opium***PRODUCES NEITHER HEADACHE, SICKNESS, NOR CONSTIPATION.**

PREPARED EXCLUSIVELY FROM OPIUM.

**NOTICE.***Chancery Division,***1897, F. No. 83.****FERRIS & CO. v. THOMAS BUXTON.***Chancery Division,***1897, F. No. 104.****FERRIS & CO. v. OCTAVIUS CORDER.**

**NOTICE IS HEREBY GIVEN** that by two several orders of the Chancery Division of the High Court of Justice, made respectively the 18th of June and the 16th of July, 1897, in the above Actions, the respective defendants and others were perpetually restrained from dispensing, selling, or supplying, or offering for sale or supply, under the name "NEPENTHE" or any colourable imitation thereof, any medical preparation NOT prepared by us, and from in any manner infringing our registered Trade Mark "NEPENTHE," No. 464.

And the defendant in each action was ordered to pay our costs.

**FERRIS & COMPANY,**

Wholesale &amp; Export Druggists, BRISTOL.

NEPENTHE is Sold in 2-oz., 4-oz., 8-oz., and 16-oz. Bottles, and is stocked by all the Leading Wholesale Druggists and Patent Medicine Houses.

We also Prepare Double Strength Nepenthe and Glycerole of Nepenthe Hypodermic Injection.

**TRADE TERMS ON APPLICATION.**

# Pharmacy Up to Date

is exemplified in our Exhibit upon Stands Nos. 109 and 110 at the CHEMISTS' EXHIBITION. We have a large staff of representatives constantly bringing our products under the notice of the Medical Profession, and creating an ever-increasing demand for same. We are also willing to concede to our friends in the trade who will undertake to push the sales of our products, and co-operate with us generally, special advantages that are generally declared to be decidedly to mutual advantage. There will be a display of

## Palatinoids — Bipalatinoids —

which contain in a soluble glycerine jujube cachet pure uncompressed drugs or volatile liqus, and which the "Lancet" of July 31st speaks of as "fine pharmaceutical products, specially useful in administering nauseous and unstable drugs or animal extracts."

### The Bipalatinoid of Ferrous Carbonate

achived the unique distinction of being specially referred to in the Report of the Research Committee of the British Medical Association as having

### Given Better Results

in several intractable cases of anæmia and chlorosis than any other preparations of iron.

#### THE FOLLOWING ARE A FEW READILY SELLING FORMULÆ:

##### PALATINOID.

|                                                      | Per doz. | 1/4 bottles | Per gross |
|------------------------------------------------------|----------|-------------|-----------|
| Apesens                                              | ...      | 8 6         | 3 6       |
| Apism 3                                              | ...      | —           | 4 6       |
| Bisuth and Pepsin                                    | ...      | 8/6         | 3/-       |
| Casra Comp                                           | ...      | 8/6         | 2/6       |
| Chlodyne m 10                                        | ...      | 9/-         | 3 6       |
| Creote m. $\frac{1}{4}$ , $\frac{1}{2}$ , 1, 2, from | ...      | —           | 3 6       |
| Eason's 3ss. syrup                                   | ...      | —           | 3/6       |
| Ferm Redact. grs. 2 and 5                            | ...      | 8/6         | 2/3       |
| Hydrog. c. Creta grs. 2                              | ...      | 8/6         | 2/-       |
| Lap tic                                              | ...      | —           | 3/-       |
| Laxi ve                                              | ...      | 9 6         | 4/-       |
| Pepn                                                 | ...      | 8/6         | 2/6       |
| Pepnic                                               | ...      | 9/6         | 3 6       |
| Pheacetin grs. 5                                     | ...      | 8 6         | 3/-       |
| Quine, from                                          | ...      | 8 6         | 2/-       |
| Sanl Co.                                             | ...      | —           | 4/-       |
| Sod Mint                                             | ...      | 8/6         | 2/6       |
| Sulional grs. 5                                      | ...      | 12/-        | 4/-       |

##### BIPALATINOID.

|                    | Per doz.                                                                                    | 1/4 bottles | Per doz. | Per gross |
|--------------------|---------------------------------------------------------------------------------------------|-------------|----------|-----------|
| Blaud's Pill       | Pill $\frac{1}{2}$ , 1, or 2, from                                                          | 8/6         | ...      | 30/-      |
| Blaud's Pill       | grs. 4, Arseniate of Sodium gr. 1/32                                                        | 9/6         | ...      | 42/-      |
| Blaud's Pill       | grs. 4, Ext. Nux Vomica gr. $\frac{1}{4}$                                                   | 9/6         | ...      | 42/-      |
| Hypophosphites Co. | (equiv. to 1 drachm of Syr. Hypophosph. Co.)                                                | 9/6         | ...      | 42/-      |
| Blaud's Pill       | grs. 4, Arseniate of Sodium gr. 1/32, Ext. Nux Vomica gr. $\frac{1}{4}$                     | 9/6         | ...      | 42/-      |
| Blaud's Pill       | grs. 4, Ext. Casara gr. $\frac{1}{4}$                                                       | 9/6         | ...      | 42/-      |
| Creasote           | m. $\frac{1}{2}$ , Hypophosphites Co. (equiv. to $\frac{1}{2}$ drachm Syr. Hypophosph. Co.) | 4/6         |          |           |

Awarded ONLY GOLD MEDAL, XI. International Congress of Medicine, Rome.

OPENHEIMER, SON & CO.,

MANUFACTURING  
CHEMISTS,

14 WORSHIP STREET, E.C.

# EDME

## EXTRACT OF MALT

GUARANTEED  
HIGHEST  
DIASTASIC  
STRENGTH

**EVER RELIABLE** HAS  
NEVER  
CRYSTALLIZED  
**HOLDS AN IMPREGNABLE POSITION**

### EDME MALT EXTRACT AND ALL COMBINATIONS.

THE LANCET says:—"This preparation proved to be a highly concentrated and active malt essence. It possesses a rich malty flavour, and acts POWERFULLY upon starch, CONVERTING IT RAPIDLY INTO MALTOSE. It is, therefore, well adapted for use as an aid to the digestion of starchy foods, whilst furnishing also important food constituents."

THE BRITISH MEDICAL JOURNAL says:—"It is of pale amber colour and good consistency. When tested with gelatinised starch it converted FIVE TIMES ITS OWN WEIGHT IN FIVE MINUTES at a temperature of 100° F. This result shows that the Extract has a VERY HIGH DIASTASIC POWER, and it therefore would be extremely efficacious as a medicinal agent where the use of an aid to the digestion of amyloseous food is indicated."

THE PHARMACEUTICAL JOURNAL says:—"This preparation is one which is not as well known to the retail chemist as some that could be mentioned, but examination of it shows that it POSSESSES CLAIMS WHICH ENTITLE IT TO EXTENDED PATRONAGE. The result of the test proves the Extract to be of UNUSUALLY HIGH DIASTASIO VALUE, and it is equally satisfactory in other respects."

### THE ENGLISH DIASTASIC MALT EXTRACT CO., LTD.

Edme Works & Laboratories, Mistley, Essex.

MANAGING DIRECTORS—J. E. J. JOHNSON, F.I.C., F.C.S.; EGERTON S. FREE

London Offices—5 NEW LONDON ST., E.C.

TELEGRAMS—"EXTRACT MISTLEY."

"BRITANICOS LONDON."

TELEPHONES—2096 AVENUE.

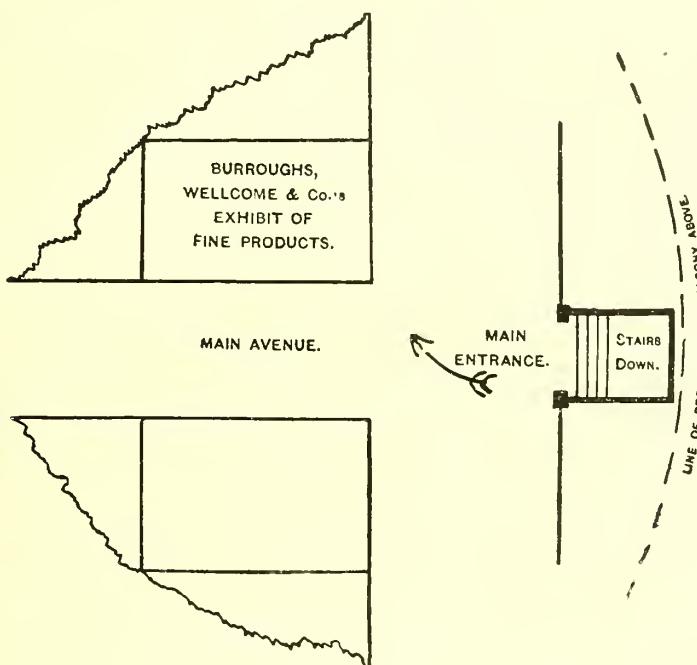
2 MANNINGTREE

# THE CHEMISTS' EXHIBITION,

## THEATRE ROYAL, COVENT GARDEN.

KEY PLAN showing EXHIBIT of  
Burroughs, Wellcome & Co.

AUGUST 16th to 20th, 1897.



Pharmacists are cordially invited to inspect our collection of Pharmaceutical, Physiological, and other Scientific Objects of Interest on exhibition at our Installation at the Chemists' Exhibition, the position of which is indicated in the Plan above. It will include many objects of recent introduction and great interest.

Burroughs Wellcome & Co., Snow Hill Buildings, LONDON.

The Trade is notified that "Vaseline" is an arbitrarily coined fancy word, and is registered as our Trade Mark, and can only be legally applied to goods manufactured by us.

**CHESEBROUGH MANUFACTURING CO.,** HOLBORN VIADUCT, **LONDON, I.C.**

*See page 103 of "THE CHEMIST AND DRUGGIST" WINTER ISSUE.*

SEND FOR REDUCED PRICE LIST OF THE "VASELINE" PREPARATIONS.

# Burgoyne's Australian Wines

SPECIAL JUBILEE PRICE LISTS OF AUSTRALIAN WINES for distribution by the Trade are in print. The names and addresses of any customers will be printed thereon on application.

*For Prices and Particulars apply to - 5 DOWGATE HILL, LONDON, I.C.*

PUBLISHED 1894.

*Sixteenth Edition, Much Enlarged, and Revised up to date. Price 12s. 6d.*

# SQUIRE'S COMPANION TO THE BRITISH PHARMACOPŒIA

"No man who has the faintest aspiration to be in the van of pharmaceutical progress can afford to ignore the ~~and~~ this exact and comprehensive epitome of pharmaceutical information has to a place at his elbow."—*Chemist and Druggist*, March 24, 1894.

"As representing the actual condition of pharmaceutical practice in the United Kingdom, the work has, however, long since far out-grown the latest edition of the Pharmacopœia, to which it was originally intended to serve as a companion and, as containing a store of valuable information, it may now be regarded as in many respects anticipating the next issue of that authority. Few statements as to which any doubt existed have been adopted without careful examination."—*Pharmaceutical Journal*, June 16, 1894.

"It is considerably ahead of the average text-books, and affords a valuable standard of reference to those who are anxious to keep pace with pharmaceutical advances, the allusions relating in many instances to current literature being the date of the present year."—*Lancet*, March 24, 1894.

"The present edition has evidently been revised with the greatest care, of which evidences are to be found on almost every page. Altogether, the improvements are so great that many of those who already possess the work will find it worth while to have the new issue."—*Practitioner*, June, 1894.

"The contents extend far beyond the limits of the Pharmacopœia, as a very large number of unofficial drug preparations are considered with the same care and minuteness as the others."—*British Medical Journal*, June 18, 1894.

London: J. & A. CHURCHILL, 7 Great Marlborough Street, W.



ESTABLISHED 1859.

Subscription: Fourpence a Week, Ten Shillings a Year.  
Summer and Winter Numbers, 1s. per Copy.CHIEF OFFICES: 42 CANNON STREET, LONDON, E.C.  
ANCH OFFICES: 231 ELIZABETH STREET, MELBOURNE.  
AND 114A PITTS STREET, SYDNEY.

Prix d'abonnement: The Chemist and Druggist une fois par semaine, et l'anda du Chemist and Druggist une fois par an, 12.50 francs par a ranee.

Abonnementspreis: The Chemist and Druggist einmal wöchentlich, und Nakalender des Chemist and Druggist einmal im Jahre, 10 Mark jährlich, frei in's Haus geliefert.

Precio suscripción: The Chemist and Druggist una vez por semana, y el Andada del Chemist and Druggist una vez al año 12.50 pesetas a las frances.

THIS JOURNAL is regularly supplied by subscription to the  
whole of the Members of TWELVE PHARMACEUTICAL  
SOCIETIES in the British Empire.

## CONTENTS: Vol. LI. No. 7.

|                                                                                                 | PAGE |
|-------------------------------------------------------------------------------------------------|------|
| Australian News.....                                                                            | 256  |
| Bankruptcies and Failures .....                                                                 | 307  |
| British Pharmaceutical Conference:—                                                             |      |
| "Corrasione" .....                                                                              | 261  |
| Lord Provost's Welcome .....                                                                    | 262  |
| President's Address .....                                                                       | 264  |
| Resolution of Delegates .....                                                                   | 272  |
| Final Statement .....                                                                           | 272  |
| "Osteography of Asaferida,"<br>Dr. J. Attfield .....                                            | 273  |
| "Primacy of <i>Conium maculatum</i> ," By E. H. Farr and<br>R. Wright .....                     | 274  |
| "New Principles of <i>Conium maculatum</i> , &c." By W. F. Flay .....                           | 275  |
| "Observations on Organotherapy," By J. C. McWalter .....                                        | 276  |
| "Further Observations on Commercial Oil of Citronellum," By J. C. Umney and<br>R. Swinton ..... | 277  |
| "Pharmaceutical Value of Sassafras Benzoin," By T. D. D. D. ....                                | 278  |
| "Notes on Some Soluble Compounds of Arsenic," By G. A. Henderson .....                          | 281  |
| "Pharmaceutical Ethics—a Prospect," By Leo Atkinson .....                                       | 282  |
| "Elie's Syrup," By R. Elie .....                                                                | 285  |
| "Hydrophosphites," By C. T. Tr. ....                                                            | 286  |
| "Medicinal Petroleum," By F. J. Bird .....                                                      | 288  |
| "Salient Features of the Scottish Flora," By G. C. Drane .....                                  | 290  |
| British Pharmaceutical Conference—(continued):—                                                 |      |
| "Strength of Commercial Samples of Alkaloidal Tinctures," By C. A. Seyler ..                    | 299  |
| "Phosphates and Platinum," By W. G. Stratton .....                                              | 291  |
| "Liquor Bisumthi et Ammonii Citratis," By W. G. Stratton .....                                  | 291  |
| "D Disinfectant Soaps," By Dr. S. Rideal .....                                                  | 292  |
| "Our Present Knowledge of the Mydriatic Group," By Dr. Gordon Sharp .....                       | 292  |
| Next Year's Visit to Belfast .....                                                              | 293  |
| Election of Officers .....                                                                      | 294  |
| Business Changes .....                                                                          | 310  |
| Correspondence .....                                                                            | 313  |
| Deaths .....                                                                                    | 257  |
| Deeds of Arrangement .....                                                                      | 308  |
| Editorial Comments:—                                                                            |      |
| The Conference .....                                                                            | 300  |
| A Pharmacy Act for Jersey .....                                                                 | 304  |
| Commentary .....                                                                                | 304  |
| English News .....                                                                              | 252  |
| French News .....                                                                               | 256  |
| Gazette .....                                                                                   | 308  |
| Irish News .....                                                                                | 255  |
| Legal Reports .....                                                                             | 305  |
| Marriages .....                                                                                 | 257  |
| New Companies and Company News .....                                                            | 309  |
| Personalities .....                                                                             | 309  |
| Pharmaceutical Society of Ireland Council Meeting .....                                         | 253  |
| The Pharmacy Act in Jersey .....                                                                | 298  |
| Trade-marks Applied For .....                                                                   | 255  |
| Trade Notes .....                                                                               | 309  |
| Trade Reports .....                                                                             | 310  |
| Westminster Wisdom .....                                                                        | 257  |

## BOTANICAL POSTCARD COMPETITION.

ATTENTION is directed to the notice that August 15 is the latest date for sending in postcards for the Botanic Competition announced in our Summer Number. A number of medicinal plants were represented in the wreath on the back outside page of that Number. Students of pharmacists are invited to name these in the order in which they appear, beginning at either end. Every subscriber, and every apprentice, assistant, or son or daughter of a subscriber is eligible to compete, provided he or she has not passed the Major examination of the Pharmaceutical Society. Postcards in reply must be sent in between this date and Aug. 15, and one guinea will be awarded; but this may have to be distributed among successful competitors.



COCAINE TABLOIDS have proved fatal to a clergyman (p. 252).

THE monthly changes in the C.S.S.A. prices are noted on p. 252.

THE SUICIDE of Professor Victor Meyer, of Heidelberg is reported on p. 257.

A CHEMIST on the P.A.T.A. black-list relates his experiences, and challenges the organisation (p. 313).

THE attention of English proprietors of patent medicines is called to a paragraph in our Australasian News on p. 256.

A SUCCESSFUL ACTION against Camwal by one of the company's employees who was injured by the bursting of a syphon is reported (p. 305).

A HIGH TEMPERATURE and several squalls characterised the meeting of the Council of the Pharmaceutical Society of Ireland this month (p. 258).

THE grievances of sub-postmasters have been the subject of an interview with the Postmaster-General, but no definite concessions were promised (p. 252).

MR. MCKNIGHT, of Belfast, has been co-opted to the Council of the Pharmaceutical Society of Ireland, in place of Mr. M. R. Whitla, resigned (p. 258).

A CHEMIST'S FRIEND, at Manchester, helped himself to some strichnine during the momentary absence of the chemist, and committed suicide with it (p. 252).

A PHARMACY ACT has been passed in Jersey at a single sitting of the States. We give an English translation of it on p. 298, and add some comments on p. 304.

OUR PARIS CORRESPONDENT gives a short report of a popular lecture on the  $\alpha$  rays, at which the application of these to Customs examinations was demonstrated (p. 256).

THE British Pharmaceutical Conference has re-elected Dr. Charles Symes as its President, and has accepted an invitation to hold its thirty-fifth meeting at Belfast (p. 294).

THE LONDON COUNTY COUNCIL have prosecuted several West-end hairdressers for storing petroleum hair-wash, without being licensed under the Petroleum Act (p. 305).

SUNDAY-CLOSING is receiving the attention of the police in New South Wales. There seems to be some doubt whether the local Act can be applied to chemists (p. 256).

THE BACTERIOLOGY OF AMBERGRIS, by M. Beauregard, is the subject of a note in our French News, on p. 256. The author has ascertained the presence of a bacillus in the substance.

ATTENTION is drawn to the International Pharmaceutical Congress at Brussels, the Chemists' Exhibition at Covent Garden Theatre, and the P.A.T.A. dinner, all of which are to be held next week (p. 314).

THE Birmingham authorities have prosecuted one chemist for selling camphor liniment containing only half the proper quantity of camphor. This is the outcome of a rather extensive test of the Birmingham chemists (p. 307).

THE British Pharmaceutical Conference has been held at Glasgow, during the current week, under the presidency of Dr. Charles Symes. We give a full and illustrated report of the proceedings, commencing on p. 261. Comments on the papers contributed commence on p. 300.

THE NORTH DUBLIN GUARDIANS propose in future to select from the medicine-tenders the cheapest lines in each. The Eoniseorthy Guardians show an appreciation of recent criticisms by selecting the highest tender, on the ground that in the others impossible prices were quoted (p. 255).

THERE has been a much better tone in the markets than is usual at this time of the year. Our London report chronicles several price changes. From Hamburg also comes the news of greater activity in the drug-business. The British heavy-chemical trade is fairly satisfactory (p. 310).



Local newspapers containing marked items of news interesting to the trade are always welcomed by the Editor.

#### Death from Cocaine.

The Rev. Maurice Augustine Moor died on August 5, at Corringham Vicarage (near Gainsborough), from the effects of an overdose of cocaine. He was, according to the widow's evidence at the inquest, 42 years of age, a curate of the Church of England, and lived at Bulwell, near Nottingham. He had gone about ten days previously to Corringham. He always had hay-fever during the summer, and was accustomed to take tabloids of cocaine. Dr. Leeds, of Ramsgate, ordered this remedy, to be inhaled through the nostrils. In reply to an inquiry by Dr. Passmore, Mrs. Moor said Dr. Leeds said he was to take the cocaine through the nose, but she was not quite sure whether tabloids or spray. Richard Burrows said: I am a chemist at Gainsborough. I knew the deceased, and he came to my shop on Thursday, and purchased cocaine tabloids,  $\frac{1}{4}$  gr. each. He came again on Monday, and bought some more, stronger than the first lot, which were ordered specially for him, being  $\frac{1}{2}$  gr. strength. He came a third time, yesterday about 1 o'clock, and had a further supply of tabloids. I supplied him with the case produced, containing a dozen tabloids. They were  $\frac{1}{2}$  gr. ones, and I also supplied him with a tube of tabloids of  $\frac{1}{2}$  gr. strength. The other case produced I cannot identify as being sold by me. He did not mention whether he was going to inhale them, but said he was in the habit of using them, and knew how to use them. He seemed all right mentally, and said he used them for hay-fever. Dr. J. E. S. Passmore and Dr. J. W. Nicholson gave evidence of the death and of the *post-mortem* examination. They agreed that the death was due to an overdose of cocaine, and the jury also took this view.

#### The Danger of Rat-poison.

A two-year old child picked up a piece of bread which had been soaked in rat-poison and placed on the ground at Newlyn, near Penzance, on August 5. It is presumed that the rats must have taken the bread from where it had been placed to where the deceased found it. The child died very shortly after eating it.

#### A So-called Chemist's Family.

Robert Mays (42), described as a chemist, but whose name is not on the register, and Emma Mays (35) were charged at Lambeth Police Court on Saturday last, on remand, with wilfully exposing their six children in a manner likely to cause them unnecessary suffering and injury to their health. A police-sergeant saw the prisoners with the children in question at 1 A.M. on July 31 in Arnold Street, Nunhead. The children, whose ages ranged from 15 to 5 years, were very dirty and thin, and most of them were so fatigued that whilst the sergeant was talking to the parents they sat down on the pavement and went to sleep. The children were taken to the workhouse, where three of them are now under medical treatment. At the time of their arrest the prisoners had a sovereign in their possession. Mr. Hopkins sentenced the prisoners to three months' hard labour each.

#### Sub-Postmasters and their Grievances.

Mr. John W. Cussons, chemist and sub-postmaster of Ossett, Honorary Secretary of the National Federation of Sub-Postmasters, stated generally the grievances of sub-postmasters at an interview which a deputation representing the Federation had with the Postmaster-General (the Duke of Norfolk) and other officials at the House of Commons on August 5. There are, it appears, 19,263

sub-offices in the United Kingdom. One gentleman that out of a turnover of £22,000 in the year of post business, his emolument amounted to £80, and he a number of sub-postmasters whose average pay was per day of twelve or fourteen hours. Mr. Cussons that he had to arrange for twenty-six weeks' holiday staff, while he himself was not entitled to any relief. took a holiday he had to pay 7s. 6d. per day for the of a relief clerk, appointed by the Department, though himself remained financially responsible. Mr. W. K. chemist and sub-postmaster of Delph, Oldham, was member of the deputation and spoke. Several members of Parliament associated themselves with the deputation. It is hoped that some concessions will be granted.

#### Store-prices.

The C.S.S.A. announce the following alterations in their August price-list:—Reduced: Camphor from 2s. to 1 $\frac{1}{2}$ d.; 1 oz. from 2d. to 1 $\frac{1}{2}$ d.; enemas (Ingram's) from 4s. 1d. to 4s. 6d.; seidlitz-powders from 7d. to 6d. per box; Wilton's pink pills from 2s. 3d. to 2s. 1d.; sugar of milk from 2d. to 1s. 1d.; Roehelle salts from 1s. to 10 $\frac{1}{2}$ d. Howards' quinine, 1 oz. from 1s. 4d. to 1s. 3d.,  $\frac{1}{2}$  oz. 8 $\frac{1}{2}$ d. to 8d.,  $\frac{1}{2}$  oz. 5d. to 4 $\frac{1}{2}$ d. Advanced: Savarese's copaiba capsule from 1s. 6d. to 1s. 9d.; sandalwood oil from 3s. to 3s. 6d.; P. ell's embrocation from 10d. to 11 $\frac{1}{2}$ d.

#### Theft from a Chemical-works.

The Phoenix Chemical-works, at Hackney Wick, have recently been the scene of rather serious depredation consequent on the cutting and carrying away of certain lead piping and sheet lead connected with the tanks. A watch was set, and two young men were caught, and charged at North London Police Court. Mr. Richard Silburn Jones, who prosecuted, said these depredations had been going on for three months, and the police had been unable to find the thief or thieves. Now, however, they had got the boy, and hoped they would be properly punished. Mr. D'Eyrat, the Magistrate, whilst discharging one of the accused, George Highsted (20), labourer, of Percy Terrace, Hackney Wick, to gaol for two months' hard labour.

#### Taking Strychnine from a Chemist's Private Office.

At an inquest held before Mr. Sidney Smelt, the Lancashire City Coroner, on August 5, touching the death of a corn-merchant named William Ellis, it transpired that the deceased had gone home shortly before 11 P.M. the previous night, and swallowed a quantity of strychnine, which he had obtained in the following manner. The deceased was acquainted with Mr. Harry Moile Sandiford, chemist and druggist, of 440 Roehdale Road, and an hour and a half before he destroyed himself he called upon Mr. Sandiford, and, as a friend, was allowed to enter his private office behind the shop. They chatted for a time, the deceased showing no symptoms of mental derangement, and presently Mr. Sandiford left the deceased alone while he went into the shop to attend a customer. Strychnine and other poisons were kept in a case in this office, which was locked up at night; but during the day it was left with the key in the lock, so as to be more easily accessible when required. During Mr. Sandiford's absence the deceased took a quantity of strychnine from this case, and secreted it about his person. Mr. Sandiford had no suspicion of what had been done. He had noticed, however, that Mr. Ellis had seemed rather run down in health and witness knew that his business had been something of a trouble to him. The next morning he examined his person, and found the strychnine-bottle in the place where he had left it. The deceased, he said, must have taken a quantity of the poison out of it whilst he was in the shop. The Coroner told Mr. Sandiford that he was not to be blamed for what had occurred. It was very unfortunate for him to have lost a friend in that way, and he sympathised with him; but the same thing might have been done by any close acquaintance. Nobody would suspect Mr. Sandiford of carelessness in the matter. The jury returned a verdict of suicide whilst insane. Two full bottles of laudanum had been found in the house occupied by the deceased, and it was suspected that they had been prepared for suicidal purposes. It should be stated that Charles Ellis, the father of the deceased, in his evidence, said that

where he went to his dying son, who had fallen to the floor, after taking the poison, the latter said, "I called on a friend of mine, a chemist, and, while he was serving in the shop, I got the strychnine and took it."

#### Poisoned by Chloral.

Mr. Samuel Fry, chemist and druggist, Bishop's Waltham, was the principal witness at an inquest, held on August 3, respecting the death of Miss H. I. L. Brine, daughter of Col. Brine, of Southsea. Deceased was found in bed dead with a tumbler containing the remains of a solution of chlorhydrate by the bedside. Mr. Fry said that on July 3 deceased came to him with a prescription—a solution for hay-fever. At the same time she had a packet of chlorhydrate consisting of 2 dr. She said she wished it to make her sleep, and he explained the dangerous nature of chloral. She plied that she was in the habit of using it, and gave with a full explanation, saying she knew well how to use it. She gave her the packet labelled "Poison," but he made no entry. Subsequently she came for a sleeping-draught of the chlorhydrate. This contained 10 gr., and was entered in his prescription-book, but was not labelled "Poison." The next day she came again, and handed to him the following letter:—"MR. FRY.—Will you write down on this paper exactly what is the safe amount of chloral to take as a sleeping-draught, and what is the amount that would be fatal? I have to know in case I should have to make away with dog at any time? I should require to know the exact quantity in that case that would be sure to be fatal, in kindness—a drachm, or two or three drachms? Please write down. I suppose two or three drachms would be fatal to a dog.—MISS BRUCE BRINE." Mr. Fry said he wrote down that the dose for an adult was from 5 to 20 gr.; and to kill a dog, 2, 3, or 4 dr. Deceased had no more chlorhydrate, and then seemed to be in good health. Mr. Whittendale, surgeon, said that in the case of deceased, her head weakened by hay-fever, a small dose of chloral would more likely prove fatal. The average dose was from 5 to 30 gr.; 25 gr. had been known to cause death, and there were cases known of persons taking 240 gr. in twenty-four hours without fatal results. A verdict of poisoned by chloral by misadventure was returned.

#### The Government is "Still Considering."

The Liverpool City Coroner (Mr. T. E. Sampson), in concluding an inquest on a woman who had committed suicide with carbolic acid, remarked that it was a lamentable fact that carbolic acid could be bought as easily as milk. If people only knew the dreadful agony and pain they had to undergo in taking carbolic acid, it was his impression that they would hesitate before taking the poison for the purpose of destroying their lives. The Legislature had done nothing to restrict the sale of the poison, and it was a great pity that nothing was apparently being done in that direction. The jury found that deceased committed suicide whilst temporarily insane, and concurred in the Coroner's remarks as to the ease with which carbolic acid could be purchased.

#### Threatening a Chemist.

At the Petty Sessions on August 15 Leonard Hall, commercial traveller, of Manchester, was charged with writing a threatening letter to Mr. George Henry Morgan, chemist and druggist, Wem, whereby he was in fear of his life. Mr. Morgan asked that defendant should be bound over to keep the peace towards him. Prosecutor stated that defendant visited him on July 20. He was surprised to see him, and ordered him off the premises. This led to very high words, and eventually defendant left. On July 23 witness received a letter from defendant in which the latter said he would come to Wem, make plaintiff fight, and if he would not fight (defendant) would flog him with a cart-whip as long as he could run after him. Defendant admitted writing the letter and urged that he had received great provocation from plaintiff, who was very impudent to him, and asked him what brought him "prowling about his yard." Defendant was bound over to keep the peace for six months, and ordered to pay the costs.

#### Not Evidence Enough.

At the Sheffield Police Court on August 6, Mr. Preston, chemist, of 56 Fargate, prosecuted a boy named Francis

Parkin, 14 years of age, on suspicion of being concerned in several till robberies which had taken place that week. Mr. Preston had on two successive days found his till had been robbed. It was believed that ingress must have been obtained through a widow at the rear, looking upon the yard. An assistant found Parkin in the yard, about 2 feet from the window. He had his jacket off, and when he saw he was observed he tried to get away into a dark corner. Mr. Preston informed the Magistrate that he had formerly employed Parkin as an errand-boy, but had to dismiss him because he was idle. The Stipendiary said there was no evidence to show that it was Parkin who robbed the till, but the case was one of strong suspicion. He sent the boy home with his mother.

#### Poisons in Birmingham Factories.

William Dalton (34), an imbecile from his birth, was particularly fond of sweets, which he was accustomed to secrete. He worked at his uncle's whip-manufactory, and in a drawer there was kept a quantity of bichromate of potash, which was used for staining. On August 5 deceased was taken ill, and it subsequently transpired that he had swallowed some of the bichromate, mistaking it, apparently, for sweets. Death and an inquest ensued. The jury found that death was accidentally caused. Mr. Knyvett, inspector of factories, said the case showed that far more care ought to be taken than was commonly the case in Birmingham in storing poisons used for manufacturing-purposes, and in marking the boxes and other receptacles in which they were contained.

#### Inquest on a Chemist.

Mr. William Henry Tuck, of Surbiton, more familiarly known in the locality as "Dr. Tuck," who at one time carried on business in the Brighton Road as a dentist and pharmaceutical chemist, was found dead on August 3 in the Black Lion Hotel, Surbiton. An inquest was held at Kingston, on August 5, by Mr. Walter Schroeder, deputy coroner. Lucy Tuck, of Rose Villa, Hook, said the deceased was her husband, but they had not lived together for four months. The last she heard of him was that he was residing at Southborough. He left her because he could not support her. She had one boy 10 years of age, and a stepson aged 34. The deceased suffered from gout and a weak heart, and he was by no means a temperate man. She had to support herself and her child, and had done so for four years. She had never heard him threaten to take his life, but he had several times threatened to kill her, and had made the attempt. On Tuesday she heard her husband had dropped dead in the yard of the Black Lion Hotel. She had not seen the body and had no wish to do so. Harry Tuck, a physician and surgeon, of Rose Villa, Hook, gave evidence of identification, and said that his father was 60 years of age, and was a registered dentist and a pharmaceutical chemist. Witness last saw him alive on Friday, when he met him as he was going home. Deceased was then coming out of a public-house. Witness was not on friendly terms with his father, who had lived with him for some months, but witness was compelled to get rid of him because of his intemperate habits. Deceased had been a drunkard for the past twenty-six years, and invariably came home drunk, but refused to go into a home. He acted as a quack doctor amongst publicans, and the money he earned in this way was always spent in drink. The foreman of the jury asked permission to say that the statement that the deceased was a habitual drunkard was untrue. He asked witness whether he did not take the practice his father had built up, and turned him out on a weekly allowance. Witness denied the allegation, and in reply to the Coroner said it was untrue that his father had ever applied for parish relief. The barmaid at the Black Lion stated that deceased came into the house, and asked for  $\frac{1}{2}$  pint of ginger-beer and beer. He sat down and drank a little, and directly afterwards his head fell back and she heard a gurgling noise. Witness gave the potman some brandy for the deceased, and sent for Dr. Robert Merrick, who deposed that he found deceased in a fainting condition. A *post-mortem* examination revealed the fact that the heart was considerably enlarged. The liver was also greatly enlarged. Witness was of opinion that death was caused by syncope due to heart failure, but he was unable to find any traces of poison. The jury returned a verdict of death from natural causes.

The Coroner asked Dr. Tuck who would bury the body. Dr. Tuck replied that he would pay part of the cost, and the parish would have to pay the remainder. The foreman remarked that the Guardians would sue Dr. Tuck for the money, and the Coroner said that as there was some insurance money to come he should make the burial order out to the widow of deceased, as a son was not responsible for the burial of his father.

#### A Dispenser in a Libel Action.

At the fortnightly meeting of the Camberwell Board of Guardians, a letter was read from a firm of solicitors relating to the affairs of Mr. C. H. Snell, who had formerly been employed as dispenser at the workhouse at Peckham. The effect of it was that Mr. Snell had been charged with criminal libel, and had been found guilty of the charge, but a remand had been ordered for the purpose of looking into the state of his mind. Under these circumstances the writers of the letter requested that Mr. Snell's superannuation allowance should be paid to them for the benefit of the wife and children. After some discussion it was decided that the suggestion could not be acted upon, and the application was therefore refused.

#### Advertising Ideas.

Messrs. Walker & Harris, chemists and druggists, Canterbury, show in their window sulphur-tablets and, as a contrast, a jar filled with the old-fashioned medicine, brimstone and treacle, by the side of which is a doll attired as a nurse, bearing in her hand a spoon with which to administer a dose. In the midst of the sulphur-tablets sits another doll bearing a card on which is written "The New Style: Even Children Help Themselves!"

#### Chemist Cyclist Breaks the By-laws.

At Malling (Kent) Petty Sessions on Monday Mr. Henry C. H. Oliver, chemist and druggist, West Malling, was summoned for riding a bicycle without a light at night. When stopped by a policeman Mr. Oliver (according to the constable's evidence) said, "I am the son of the Mayor of Maidstone, and it is not likely I should break the law intentionally." Witness observed that he had already done so. Mr. Oliver then mounted his machine and rode away. In defence Mr. Oliver said the loose state of the roads between Maidstone and Malling, where he was stopped, caused such oscillation to the lamp on his bicycle that it would not keep alight. The Bench imposed a nominal fine of 1s., with 7s. costs.

#### Fires.

About 10 o'clock on Saturday night, August 7, a fire broke out on the third floor at 28 High Holborn, a large building occupied by Taylor's Drug-stores. Several engines and firemen were soon in attendance, and eventually succeeded in subduing the outbreak, the cause of which is unknown.

A fire occurred on Tuesday afternoon on the premises of Mr. Percy Carr, chemist and druggist, 85 and 87 Ecclesall Road, Sheffield. A carter, in Mr. Carr's employment, was emptying a barrel of turpentine into a storage-cistern when the turpentine took fire. The flames spread to the cistern which was being filled, but in the same warehouse there were six other cisterns containing some 700 gallons of turpentine besides other oils. The flames were very fierce, and a man named Rodgers, who came in to help, was so badly burned that he had to be taken to the hospital, where he has since died. The damage, amounting to about 200*l.*, is covered by insurance.

#### Chemists at Cricket.

On Saturday, August 7, Burgoyne, Burbridges' C.C. played the Allenburies C.C. (Messrs. Allen & Hanbury) on the former's ground at Wadham Lodge, when Burgoyne's proved victorious by 46 runs, the scores being—Burgoyne's, 79; Allenburies, 33. Selwood was top scorer, with 23, for the winners.

#### Suicide of Dispensary Messenger.

Alexander Redpath, messenger at the dispensary, St. Matthew's, Bethnal Green, drowned himself in the river Lea on account of his being suspended from his duties, at the instance of a Guardian, for a supposed breach of regulations. He was an old servant, and well known (liked by the poor

and officials), and his death is causing a great deal of excitement in the parish.

#### Are Wine-licences Desirable?

At a meeting of the Bideford Town Council on Friday last, the attention of the Council was called to the fact that Mrs. Hogg, a chemist, and a tenant of the Council, had given notice of her intention to apply for a wine-licence for her premises. Mr. Tattersill alluded to the report of the Licensing Commission, who, he said, considered that 80 per cent of the drunkenness among women was due to the facilities offered to obtain wine and spirits privately. They, as a Council, therefore, ought to exercise their rights as landlords to prohibit the sale of that which had been proved to be so injurious to the public weal. Mr. Restarick said he would be sorry to see any more facilities offered to obtain wine, as they were plentiful enough in the town already. Mr. Pollard vindicated the action of Mrs. Hogg, and pointed out that she was only applying for a wine-licence. Mr. Maidstone had always been an advocate of cheapening wine and wines. (Laughter.) Wines, said Mr. Pollard, were now dear, and he for one should be glad to see free trade in them. It was resolved, on the motion of Mr. Braund, to refer the matter to the Council in committee to consider.

#### Charge against a Wholesale Druggist's Clerk.

Henry John Bromige, aged 20, clerk, of Bromhead Street, Stepney, was charged at the Clerkenwell Police Court, on Monday, with stealing from 58 Bunhill Row the sum of 7s. 4*d.*, the moneys of Messrs. Wyman & Co., druggists, his employers. Evidence was given that prisoner had been in the employ of the firm as clerk for two years. His tasks were to superintend the foreign postage, and to purchase bills of lading when they were required. Last month investigations were made during the absence of prisoner, who was on his holidays, and it was found that there was a deficiency of 30*l.* in the past twelve months on the bills of lading. On Bromige returning, he was taxed with appropriating a specific sum of 7s. 4*d.*, and he said, "I am very sorry; I wanted half-a-sovereign, and I took it." He was once dismissed from the service of the firm, and subsequently given into custody. The accused was remanded for a week.

#### Trade Trips.

The employés of Bennett, Sons & Shears (Limited), engineers and coppersmiths, 167 Kingsland Road, celebrated their annual beanfeast at Clacton-on-Sea on Saturday, July 31. The party numbered about fifty, including Mr. James Bennett and Mr. James Shears, directors, and the principals of departments. Dinner was served at the Brunswick Hotel, and the rest of the day was spent in outdoor recreation.

On Saturday, August 7, the employés of Messrs. T. Morson & Son, at Summerfield Works, Homerton, had their annual excursion to Brighton. They left London Lime Street at 8.30 A.M., arrived at Brighton at 10.30, at 1 P.M., dined at Chatfield's Hotel. A vote of thanks was passed to the firm on the motion of Mr. Tipping, and thanks were also voted to Mr. Harrison for his services in arranging the trip. Tea was served at 5.30, and a start made for home by the 7.30 train.

#### Danger of the Ammonia-bottle.

Kate Carrigan, 25 years of age, residing in Salford, was engaged in washing blankets on Friday last, and, desiring to use ammonia, took up a bottle containing the liquid, but as she was unable to draw the cork with her hands, she succeeded in doing so by placing the end of the cork between her teeth. The cork coming out suddenly, a quantity of the fluid went into her mouth, from the effects of which she died at the Salford Royal Hospital on Monday.

#### Sad Death of a Druggist's Wife.

An inquest was held at Hammersmith, on August 6, on the body of Margaret Ann Young (22), wife of Mr. John Young, druggist, of 77 Shepherd's Bush Road. The husband and his wife enjoyed good health, but was daily expecting confinement. On the previous Wednesday she got up to prepare breakfast, and he suddenly heard a scream. He went in and found her in a chair semi-conscious.

convulsions. Death took place before a doctor could be called. Dr. Caldicott said death was due to convulsions during fits, and a verdict was accordingly returned to that effect.

#### Theft of Medicine-bottles.

François Terry, 37, general dealer, of Crozier Terrace, went to the glass-bottle works of Mr. J. B. Gardiner, at Fore Road, Hackney, on August 1, and it was alleged came away with 200 of 1-dr. bottles which he had no right to. He was given into custody, and, after nine days' remand, was dealt with by Mr. Cluer, at North London Police Court, and held over in his own recognisances of 5*l.* to come up for judgment if called upon within six months.



val news containing marked items of news interesting to the trade are always welcomed by the Editor.

#### The Highest Tender Accepted.

The Enniscorthy Guardians on August 5 considered the medicine contract. It is very noteworthy how carefully these medicine contracts are considered since the criticism on them began to appear in THE CHEMIST AND DRUGGIST some six months ago. In the Enniscorthy case the tenders had been analysed by the dispenser to the Union, Mr. Connolly, who reported as follows:—

I first acquainted the medical officers and got them to mark the drugs, & which they were in the habit of using and could not do without; then took all the bills of medicines for the past twelve months and selected from them what I saw the medical officers were in the habit of ordering most. I did not include very small or those amounting to only 3*s.* or to 5*s.* in the year, and only ordered one of the medical officers in the Union. I then took the prices tendered for by the different contractors and entered each in a separate column, headed by the name of the contractor. I added up and found the totals for the different items of medicine quoted as follows:—

|                                                             | £  | s. | d. |
|-------------------------------------------------------------|----|----|----|
| Leete & Co., Dublin ...                                     | 5  | 11 | 9  |
| Hu., Dublin ...                                             | 5  | 14 | 8  |
| Clare, Dublin ...                                           | 4  | 17 | 0  |
| Wes. Roberts, Enniscorthy ...                               | 10 | 11 | 9  |
| Co. Chemical Drug Company ...                               | 6  | 9  | 4  |
| Boan & Boyd, Dublin ...                                     | 6  | 7  | 6  |
| Total contractor for medicine supplied during past year ... | 9  | 6  | 7  |

also compared the prices of two wholesale manufacturers—viz., Jarrow, F. Eveys & Co., London; Richardson & Co., Leicester—and the Apothecaries' Hall, Dublin. I find that Roberts and the old contractor are nearer to the quotations of the manufacturers mentioned than any of the others, who are, in my opinion, 20 per cent. to 50 per cent. under them.

Dr. Kelly, in commenting on the tenders, said the duty on rectified spirit is 10*s.* a gallon. [Dr. Kelly understated his case: the duty on proof spirit is 10*s.* 10*d.* per gallon.] He mentioned that 'Leslie proposes to make you a present of the rectified spirit if you pay the duty on it. He tenders at 10*s.* Now, I say it is impossible for Mr. Leslie to give you a decent article at that price. The next tender is from Mr. Hunt. He proposes to give you a gallon of rectified spirit at 15*s.*, whilst Clarke, of Cork, proposes to give it to you at 5*s.*—that is, just half the price of the duty. He will pay half the duty to amuse you. Now, Mr. Roberts proposes to give you the same article at 24*s.*, the price here in wholesale list being 23*s.*—that is, by buying large quantities in London you get it for 23*s.* and Mr. Roberts puts on 1*s.* for packing, &c. We have decided to recommend Mr. Roberts as the person from whom you will be most likely to get decent drugs at a fair price. If you go down town, and if a man offers you a reaping-machine for 4*s.* that would cost 4*s.*, I do not suppose you would take it. It matters little to us what contract you take. The average price in London for the article I have

mentioned is 23*s.*, and I have quoted the prices at which it has been offered." The Guardians unanimously agreed to accept Mr. Weston Roberts's tender.

#### Naval Hospital Dispensers.

Dublin has been selected, says the London correspondent of the *Irish Times*, as one of the three centres at which an examination is to be held for dispensers in her Majesty's Naval Hospitals. These positions are a good deal sought, not merely because of the pay, but because of the pension prospects associated with them. No man can enter the examination who is younger than 20 or older than 25, and he must already possess either the Major or the Minor qualification of the Pharmaceutical Society of Great Britain or the certificate of competency granted by the Pharmaceutical Society of Ireland. The dispenser's pay remains for five years at 5*s.* a day, then he receives triennial increments of 6*d.* a day until he has given fourteen years to the service, then he receives triennial increments of 1*s.* a day until he has given twenty years' service, and finally his pay is raised to 10*s.* a day.

#### Belfast Waters Still Progressing.

In a comparative statement of goods imported into and exported from the port of Belfast during the past three months, it is stated by the Harbour Commissioners that the exportation of aerated waters has increased from 3,078 to 3,400 tons during the period.

#### North Dublin Drug-contracts.

At a meeting last week of the Guardians of the North Dublin Union, it was proposed that in future each party tendering should get the supplying of the item on terms for which he was lowest, and that the advertisement for the supplies should distinctly state that the partial or entire contract would be given to the cheapest tender. The proposition was resisted, on the ground that the Board should not bind itself to any defined course. While desirous of giving the contract to the lowest tender, the right to its liberty should be reserved by the Board. On a division the voting was equal, and the motion was declared lost.

#### A Privy Council that Does its Duty.

Notice has been issued by the Privy Council warning unregistered persons against selling carbolic acid and certain other preparations which, by an order dated June 17 last, were declared poisons and ordered to be sold as such.

#### Personal.

Mr. David Hadden, eldest son of Dr. Hadden, proprietor of the Medical Hall, Wexford, has been awarded the Wheeler Gold Medal of the City of Dublin Hospital.

Mr. Kilpatrick, apothecary to the Castlereagh Dispensary, has been granted an increase of salary from 80*l.* to 100*l.* a year.

## Trade-Marks Applied for.

(From the "Trade Marks Journal," July 28, 1897.)

Facsimile signature on label, with wording; for a cough and throat mixture. By George Andrew, 18 Lord Street, Gainsborough, medicine proprietor. 205,479. Essential particular: the signature.

"SA-YO"; for jujubes (not medicated), being confectionery. By Wallace & Co., 166 Moore Street, New York City, U.S.A. 201,663.

"BIWIL"; for beef-tea. By F. L. Borthwick & Co., 381 King'sland Road, London, N., merchants. 202,223.

From the "Trade Marks Journal," August 4, 1897.

"SIRRONIA"; for chemical substances used in manufactures. By W. J. Norris & Brother, Calder Chemical-works, Sowerby Bridge, Yorkshire, chemical-manufacturers. 205,525.

Decorated square label with wording, "Bartlett's Digestive Food," &c.; for a prepared food for infants, the feeble, invalids, and the aged. By Mary Bartlett, Glenlyon, New Road, Shanklin, I.W., digestive-food manufacturer. Essential particular: label device. 204,143.

## French News.

(From our Paris Correspondent.)

**INSPECTION OF PHARMACIES.**—The annual inspection of pharmacies has commenced throughout France, and will continue until the end of next month. The committees, which are composed of doctors and pharmacists, inspect all pharmacies, drug-stores, herbalists', grocers' shops, mineral-water manufactories, &c., and undertake prosecutions, with the aid of the local police authorities, in case of need.

**THE PRACTICE OF PHARMACY.**—The Court of Cassation has recently given a decision to the effect that under the existing French pharmacy laws simple remedies such as castor oil may be sold by anyone in this country, but that compound medicaments, even such as "sedative water" and carbolic-acid water, can only be retailed by properly-qualified pharmacists. This decision was given in a case of litigation in which Sisters of Charity were prosecuted for illegal practice of pharmacy. They stated that they were inspired by "pure sentiments of humanity," though they appear to have derived some financial benefit from the transaction.

**THE TOXICITY OF HUMAN PERSPIRATION.**—This question has been much discussed in scientific circles here lately, investigation having shown that the perspiration obtained from the flannel-vest of a market-porter, and that taken from the glove of a lady who had danced for several hours, when injected in rabbits gave rise to acute symptoms of poisoning. The question was introduced at the Paris Academy of Sciences last week by Professor Arloing, of Lyons. This gentleman has found that the perspiration resulting from muscular exercise such as bicycling, dancing, fencing, &c., is more poisonous than that produced by a Turkish bath and other artificial means. M. Berthelot mentioned that, according to Africenus, the ancients used the sweat obtained from horses for poisoning the points of their arrows.

**POPULAR LECTURES ON THE X RAYS** are being given in Paris by M. Rémond, assistant to M. Gaston Seguy, of the School of Pharmacy, the inventor of the "lorgnette humaine." A C. & D. representative attended one of these lectures a few evenings ago at the Salle Pompadour, a pretty little hall on the Bd. des Italiens. M. Rémond commenced by explaining Crookes's and Röntgen's discoveries, and made several "popular" experiments. For instance, a number of minerals, enclosed in a glass tube and subjected to the discharge, assumed the varied colours of a bouquet of flowers. In the second part M. Seguy's "lorgnette humaine" was introduced, and many curious experiments were made. A young lady was asked to go on the platform, and the bones in her hands and arms were shown by the apparatus. The lecturer then explained how the "lorgnette" can be used to advantage in Custom-houses. His experiments tended to prove that he could see more without opening a package of goods than a "douanier" could detect by opening and inspecting.

**THE BACTERIOLOGY OF AMBERGRIS.**—At the Paris Academy of Sciences, on July 26, M. Beauregard, of the Natural History Museum, read a paper on his work in connection with the bacteriology of ambergris. The author has ascertained the presence in that substance of a polymorphous comma-bacillus (*spirillum recti physeteris*), which is extremely mobile and much resembles the bacillus of Asiatic cholera. This bacillus was found alive in a lump of ambergris that had been kept in a store-room for four years. The author also referred to the fact that ambergris only acquires its sweet odour gradually, after becoming free from the foetid substance which covers its pleasant odour for a considerable time, and which is caused by the presence of certain foreign matters in the ambrein crystals that form the bulk of ambergris. It is generally stated that the foetid substances are eliminated in the process of slowly drying the ambergris, but M. Beauregard does not think that the foreign matter can be removed by drying alone, inasmuch as it is well known that fresh ambergris cannot be rendered sweet by drying it quickly by artificial heat. He thinks that the foetid matter is gradually absorbed and destroyed by the action of the bacillus in the substance.

## Australasian News.

**BOTTLE-MAKING IN NEW ZEALAND.**—Sanderson bottle-factory at Newtown, has been converted into "New Zealand Glassware Company (Limited)." The secretary has written to the Benevolent Trustees that recipients of relief may make very fair wages by broken glass, which his company will buy.

**WHOLESALE DRUGGISTS AND PHARMACEUTICAL ASSOCIATIONS.**—As an emphatic expression of opinion on the advisability of members of the wholesale trade being on the governing bodies of pharmacists, the action of Mr. P. Francis at the June meeting of the Pharmaceutical Society of Australasia is noteworthy. He had been treasurer and member of the Council for many years, but he forward his resignation, as he had retired from the retail business and felt that he was no longer eligible to hold office.

**THE AUSTRALASIAN "ASSOCIATION."**—The seventh session of the Australasian Association for the Advancement of Science will commence in Sydney on January 6, 1898, under the presidency of Professor Liveridge, F.R.S. As the meeting will take place at the end of the year, and during the vacations of the universities and colleges, it is thought that there will be a large attendance. Mr. T. C. Cloud, F.I.C., F.C.S., is president, and M. W. M. Hamiet, F.I.C., F.C., secretary of the section for electricity.

**Victorian Government Contracts.**—Roeke, & Co. have secured the contract for a twelve-month supply of rabbit-extirpating materials to the Government at the following rates:—Arsenic, 24s. per ewt.; bisulphite of carbon, 5½d. per lb.; phosphorus, 4s. per lb.; stannous (powdered and coloured), 3s. 6d. per oz. They are also to supply during the next year aniline dyewares, sorted colours, at 7s. per lb. The contracts for photo-lithographic chemicals, disinfectants, druggists' sundries and materials, and drugs, medicines, &c., are also held by this firm.

**TO THE MANUFACTURERS OF ENGLISH PROPRIETARIES.**—A correspondent of the *C. & D. of Australasia* draws attention to the fact that colonial chemists often decline to stock imported proprietary articles because makers insist upon marking them with the English sale rates. Many colonists cannot understand that freight, agencies, duties, and wholesale dealers' profits bring the articles in many cases considerably over English retail rates. This especially applies to Queensland, where the duties are heavy, and in many cases the goods have to be carried many hundred miles by coastal steamer, rail, and waggon.

**RUBBER FROM THE AUSTRALIAN TROPICS.**—The enormous increase in the price of rubber within the last ten years has led to the cultivation of the plant in many new countries. Certain British chemists are now visiting the rubber-producing countries in South America with a view to improve the quality of the product, and in Queensland, New South Wales, and South Australia inquiries are being made as to the possibilities of the industry. Mr. Maurice Holley, director of the Port Darwin Botanic Garden, in 1888 located the planting out of Ceara rubber and Para rubber in the Government forests. At present it is said that a large London firm are about to start rubber-planting on a very large scale in Bathurst Island, to the north of Port Darwin.

**SUNDAY CLOSING IN NEW SOUTH WALES.**—The Sydney police have received instructions to enforce Sunday closing statutes, and some fear has been entertained that pharmacists might be proceeded against if they kept open shop. An Australian journal has turned up the law on the subject, and finds that the Act of 1833 regulating the police in Sydney applies. That Act forbids any house or shop to be open for the purpose of trade on Sundays except butchers, fishmongers, and greengrocers, who may keep open until 12 M. (12 noon), bakers, who may open between 1 and 2 P.M.; and "apothecaries," who may keep open shop at any hour. Whether there has been a legal definition of an "apothecary" in connection with the British Apothecaries Act, which does not apply to modern chemists, there can be little doubt that it is quite possible for chemists to bring themselves within the definition of "apothecaries" from the point of view of this particular law.

## Westminster Wisdom.

### PARIS EXHIBITION.

The Under-Secretary of State (Mr. Curzon) is hopeful that the difficulties which have arisen as to the allotment of space at the Paris Exhibition of 1900 to exhibitors from the United Kingdom will shortly be removed. He states that a Royal Commission to act in the interests of British exhibitors will be appointed in the autumn.

### THE END OF THE SESSION.

The bilee Session was brought to a close on Friday. Plenty of work has been done—of a kind; though the Legislature has not given chemists and druggists any special reason or gratitude. The Workmen's Compensation for Accidents Act is probably the most important social work of the session, though its precise value can only be tested by experience. An Act authorising, but not enforcing, the use of a metric system of weights and measures is sensible, but not evolutionary. The absurd Food and Drugs Bill that the Government introduced a few days before the House was formally withdrawn on the day before Parliament was prorogued. The Companies Bill, introduced in the Lords, was referred to a Committee, which was still engaged upon it when the Session ended. The Cleansing of Persons Act, which we owe to Mr. Hazell, is virtually the sole triumph of private-member legislation. Mr. Kearley's Food and Drugs Bill, the various Early-closing Bills, the Registration of Firms Bill, and the Midwives Registration Bill, have all gone by the board, none of them securing the glory even of second reading. Some useful business has been done by the Merchandise Marks Committee. Possibly next year there will be legislation on the basis of their report, in regard to administrative work we have had to note important changes in the Post Office in respect to parcel, stamp, and letter rates. Changes have also been made in respect to the storage of carbide of calcium. For the rest we have only to note that changes in the Vaccination Law have been foreshadowed, and that during the Session important questions have at various times been addressed to members on such subjects as vivisection, the opium-tide, and the patent law.

## Marriages.

ADAMSON—LAING.—On August 3, at Christ Church, Rathgar, by Rev. George Hanson, D.D., Robert Adamson, of The Pharmaceutical Society, Ballina, to Amy, daughter of the late J. Kerr Laing, Llina.

JOHN—TOOLE.—On August 5, at St. Michael's and All Angels, Valthamstow, Mr. J. R. Johnson, Royal Naval Hospital, Plymouth, to Miss Clara Louise Toole, niece of Mr. J. L. Toole, the noted actor. Mr. Johnson is one of the most energetic members of the Plymouth Association, being Secretary to the Educational Committee, and takes great interest in the juniors by giving classes in pharmaceutical Latin weekly.

MCKNIGHT—BROWN.—On August 9, at Windsor Presbyterian Church, by the Rev. H. Woods, M.A., Robert W. McKnight, M.P.S.I., and member of the Council of the P.S.I., the son of the late Robert Warren McKnight, Arva, to Mary Elizabeth (Minnie), youngest daughter of David Brown, Kensington, Windsor Avenue, Belfast.

MIDDLETON-TAYLOR—ELLINGTON.—On August 11, at St. Luke's Church, Cork, by the Rev. S. H. Ponsonby, Tylton Middleton-Taylor, only son of William Reay Taylor, chemist, Middlesbrough, to Eleanor Mary Ellington, only daughter of C. T. Ellington, Esq., R.N.R., Collector of H.M. Customs, Cork.

RICHMOND—BATES.—On August 4, at St. Mary's Church, Oldham, by the Rev. Reginald Harvey, M.A., Joseph Frederick, fourth son of the late William Richmond, to Betsy H. Bates, associate of the Pharmaceutical Society, and eldest daughter of Hiram Bates, M.P.S., chemist, Oldham.

## Deaths.

COSSENS.—Mr. William Cossens, of Monmouth, whose death at the age of 63 was mentioned last week, was an alderman of the Monmouthshire County Council, a magistrate for the borough of Monmouth, and an alderman of the Monmouth Town Council.

DELF.—On August 5, Mr. Daniel Frederick Delf, chemist Westgate, Dewsbury. Mr. Delf had been in business in Dewsbury for twenty-five years. In March of this year he had a stroke, but he appeared to steadily improve. On Thursday morning he went to his business, but just before dinner he had an apoplectic fit, and gradually sank. He was removed to his residence in a cab, and died about 4 p.m. He was 61 years of age.

MEYER.—Professor Victor Meyer, one of the leading German scientists in the domain of organic chemistry, died at Heidelberg on August 7. At first it was stated that the Professor had died of apoplexy, but afterwards it transpired that he committed suicide by taking poison. Domestic trouble is said to have been the cause of the act. Professor Victor Meyer (who is often confounded with his cousin, Lothar Meyer) was born in 1848 at Berlin, where his father carried on business as a cotton-spinner. Mr. Meyer, sen., was a well-to-do merchant who made himself widely known by his gifts for philanthropic and public purposes. Victor Meyer studied chemistry at Berlin and Bonn, under Bunsen and Baeyer. Victor Meyer was called to the chair of chemistry at Stuttgart in the early seventies, and from 1872 to 1885 he occupied a similar position at Zürich. In that year he became professor of chemistry at Göttingen, and in 1889 he succeeded Professor Bunsen at Heidelberg. In connection with this appointment it may be mentioned that both Professor Meyer and his great rival scientist, Professor Fischer (who was then at Marburg), were looked upon as probable successors to Professor v. Hoffmann in the chair of chemistry at Berlin, which is considered the highest university distinction a German chemist can obtain. It was expected that the Berlin chair would soon become vacant, and when that at Heidelberg also fell open it was offered both to Meyer and Fischer. The last-named, it is thought, received at the same time a hint not to accept the offer, as Berlin was reserved for him. Professor Meyer, not receiving a similar assurance, accepted the Heidelberg chair, and held it until his death. Professor Meyer had published a very large number of papers, mainly on organic chemistry. His best-known work deals with the nitrogen compounds, with nitroso and isonitroso bodies, with aldoximes, &c. His principal discovery has been that of thiophene, a body closely allied to coal-tar, but differing in its chemical composition by the displacement of two hydrocarbon groups by a sulphur atom. It was also to Professor Meyer that we owe the valuable method of determining the specific gravity of vapour, which is now in general use. His activity had recently been devoted chiefly to the chemistry of the elements. The success already attained by him in this line of research was shown in the excellent paper he read at last year's Congress of German Analysts, when he gave an account of his successful experiments in the reduction of chlorine, bromine, and iodine at temperatures of about 2,000° C. Professor Meyer was one of the most popular figures at science congresses in Germany. He was a man of agreeable presence, above middle height, with whiskers turning grey, and bright blue eyes. In 1885 Professor Meyer was made an honorary member of the (British) Chemical Society.

SLEEMAN.—On August 5, at Helston, Mr. James Sleeman, Aged 84. Mr. Sleeman formerly carried on business as a chemist, but retired sixteen or seventeen years ago.

WOOD.—On July 31, at Church Street, Romsey, Mr. James Wood, manager of Messrs. Wride & Co., chemists and druggists, Romsey. Deceased, who had been under medical treatment for several days, died suddenly in the presence of his wife, heart disease being the cause of death.

MUCILAGE OF ACACIA plus 10 per cent. of glycerine will not gelatinise with tincture of iron.

## Pharmaceutical Society of Ireland.

THE monthly meeting of the Council was held on August 4, at 3 p.m. Present: Mr. W. F. Wells, jun. (President), Messrs. Grindley, Montgomery (Belfast), Ryan, Conyngham, Bernard, Professor Tichborne, Beggs (Hon. Treasurer), Hayes, Simpson, and Kelly.

### CO-OPTING A MEMBER OF COUNCIL.

The PRESIDENT said the first business was to co-opt a member of Council in place of Mr. M. R. Whitla, who had resigned.

Mr. MONTGOMERY proposed Mr. McKnight, pharmaceutical chemist, Belfast. Mr. McKnight was secretary of a local association, and took a considerable interest in pharmacy.

Mr. GRINDLEY seconded this motion.

Professor TICHBORNE asked leave to anticipate a letter which appeared lower down in the agenda-paper from Mr. T. W. Robinson, resigning his offices as examiner, by now moving that Mr. Robinson be co-opted.

Mr. BERNARD seconded the motion.

Mr. GRINDLEY objected to any matter in the agenda-paper being taken out of its order.

Mr. BEGGS said he was prepared to put forward Mr. McCormack, of Monkstown.

The PRESIDENT said he had received a message from Mr. McCormack to say that he could not attend. He (the President) would take the motion for the nomination of Mr. Robinson, for practically that gentleman had resigned.

Professor TICHBORNE said everyone would agree that Mr. Robinson had served them well, both when he was a member of the Council before, and also as an examiner. There had been a great deal of discussion as to the position Mr. Robinson had taken up by becoming the member of a company. He (Professor Tichborne) had his own opinion about that, and perhaps would be inclined not to side with him; but what they had to consider now was, would he make a good member of the Council?

Mr. CONYNGHAM seconded the motion.

Mr. BEGGS said no man had a higher estimate of Mr. Robinson than he had; but he did not think it was proper for a gentleman to resign his seat on the Council in order to take a lucrative position as examiner, and the moment the examinership expired to seek to come back to the Council again.

Mr. RYAN: Has Mr. Robinson's resignation been accepted?

The PRESIDENT: No; but I believe when he sends in his resignation he practically ceases to be an examiner.

Mr. RYAN: Then he is not eligible for co-option.

The PRESIDENT said Mr. Robinson was a personal friend of his own, but he thought Professor Tichborne had hit the nail on the head when he suggested the objection to him as a member of a limited co-partnership. Some of them thought that limited companies did not tend to the advancement of pharmacy; on that ground alone he (the President) would not vote for him. It would be better for him to go forward at the election, and let the licentiates say whether they approved of him as representing company-pharmacy principles or not.

Mr. CONYNGHAM: You are forgetting that you yourself pressed Mr. Hodgson to stay on the Council.

The PRESIDENT: I do not forget anything. I am perfectly clear.

Mr. BERNARD: Is Mr. McKnight willing to act; or is he aware that he is to be proposed?

The PRESIDENT: I intend to vote for him because I believe he will serve.

Mr. MONTGOMERY: He knows that he is to be proposed.

An open vote was then taken, with the following result:

For Mr. McKnight—Messrs. Ryan, Montgomery, Grindley, Simpson, Beggs, and the President.

For Mr. Robinson—Professor Tichborne and Messrs. Bernard and Conyngham.

Mr. BERNARD alleged that this co-option had been conducted in a hole-and-corner way. Two months ago Mr. McCormack consented that his name should be put forward. Since then Mr. Robinson had asked him would he vote for him. He replied that he could not, as he was going to propose Mr. McCormack. Mr. Robinson then said Mr.

McCormack would not act. As a matter of course Mr. McCormack should have acquainted his proposer with that.

The PRESIDENT: I have this telegram from Mr. McCormack, handed in at Monkstown at 12.30:—"Wells don't put me forward. Can't attend in afternoon." I had no communication with him in reference to this. I wrote to a gentleman in Belfast, who is an active supporter of the Society, but Mr. McKnight is the senior man, and he told me that he would attend, so that I think we have done wisely in giving Belfast a representative. I do not think there are any grounds for saying that this is a hole-and-corner matter.

Mr. BERNARD said what he meant was that the option was arranged behind the backs of the Council. He had extracted that Mr. McKnight was only an emergency candidate, and was not perfectly aware that he was to be put forward, nor had he promised to attend.

### THE LATE DR. COLLINS.

The PRESIDENT said that since they last met, Dr. Collins, who was an old member of the Council, had been called away. He had always found him an exceedingly courteous gentleman. He was a very active member of the Council whilst he was a member of it. It was therefore right that they should pass a vote of condolence with his family.

On the motion of Mr. BEGGS, it was ordered that a vote of condolence be written to the family of Dr. Collins.

### THE VICE-PRESIDENT'S RESIGNATION.

The REGISTRAR read a letter dated July 7, from Mr. R. J. Downes, resigning the office of Vice-President, and the following letter, dated July 17, from Mr. Downes:—

Dear Mr. President,—I find I will not be able to attend the meeting of Council on the 4th prox., owing to holiday arrangements. I beg, therefore, to report to you the circumstances which led up to my resignation of the office of Vice-President. I perhaps owe you an apology for doing so previous to consulting you. I think, however, I best, as I might have been influenced by a consideration of secondary matters, and had I done so I might have been open to the charge of "conspiracy" which, I think, has more than once been made against us. As you are aware, I took the chair, with the consent of the Council, to enable you to make a statement previous to withdrawing, that the Council might be free to discuss the report of the Certificates Committee. You are aware how my action was met by the Council during the discussion which followed. I was three times told by Councillor Bernard that I was passed and did not hold an even balance. I do not quote the exact words. Doubtless I should have called him to order, but being a young man, I got through the business with as little friction as possible, and being conscious that the charge was not true, I did not do so. The ruling I made in the chair I would like to correct. When I ruled that "if we had written by-laws for the conduct of our meetings we could suspend them by resolution," I should have said "no member objects." The only other matter that I am aware of that could be construed into the showing of bias was when I answered Councillor Kelly's question "What is the object of having this special report?" I said, "The only object the Council has is to use it for law purposes." The word "only" was objected to by Mr. ex-President Hayes, who called on me to withdraw it. I said, "I saw no other"; he then admitted it was "one of the objects," but not the only one. I withdrew the statement and adopted his words that "one of the objects of having this special report was for legal purposes." The discussion not being settled I am at a loss as to exact quotations, but I think I am correct in any words I have marked as quoted. Having passed the resolution adopting the committee's report, I desire to ask the Council for a direction to the committee for future guidance, and while addressing the Council I was persistently obstructed by Councillor Bernard, and not allowed to proceed. I then said "under the circumstances I could only follow the example of the President and withdraw." I hope these words are on the record. Having vacated the position, I saw no course open to me but to submit my resignation formally for the acceptance of the Council, which I did as soon as I reached home.

I am, &c.,  
R. J. D. NEES.

Professor TICHBORNE asked to be allowed to speak. He retched who took the chair in order to get over his nervous difficulties, to propose that Mr. Downes be requested to reconsider his resignation. Mr. Downes was an ornate old man of the Council; he was always clear and collected, although he was not always in the right. He was so in two cases out of three. On the occasion in question there was a great deal of excitement, and he (Professor Tichborne) as secretary

President, took the chair with great reluctance, in order to finish the business. Everybody was in a state of tension on the occasion, and he thought that neither Mr. Bernard nor Mr. Downes should, on consideration, take the serious view of the matter that Mr. Downes had done. It was not a very serious accusation, after all, to say that a man was "biased." He himself was often biased, and they hardly considered anything without being more or less biased about it. Even if Mr. Downes was biased he was sure he would not have done anything unless he thought it was for the advantage of the Society; and therefore he thought that those who were against his views on that occasion would regret it being the cause of his leaving the Council.

Mr. BEGGS seconded the motion, which he had intended to propose himself.

Mr. BERNARD said it would be quite unnecessary for him to answer the charges brought against him by Mr. Downes on the last day. He took no part in the beautiful language and the shrill shrill went on.

The PRESIDENT: Oh! Question.

Mr. BERNARD: Oh, it is true; this matter was not reported, and he (Mr. Bernard) was prepared to supply a complete and authentic report of what occurred; and if this appeared in the public papers he would supply that report. He had said a word or two the beautiful epithets that were bandied from one end of the table to the other. He was sorry Mr. Doyes had taken this childish method of bringing his (Mr. Bernard's) name into notoriety, and of obstructing the Chair. Mr. Downes convicted himself of being biased when he withdrew the first half-dozen words that he said in the chair; and it was then that Mr. Bernard said he was biased. Again, after a solution was passed which he did not sign as chairman he commenced to read a lecture, and said that now the resolution was passed there could be no further discussion. He (Mr. Bernard) objected to his lecturing on a resolution that had been passed, and he seized the opportunity and left the chair. He was very sorry to see him leave the board; at the same time he would not be wrongfully accused of obstructing the Chair and the business of the Council. He was quite certain that he did not do it, and he thought those members who were present would agree that he acted as coolly and quietly as he could under circumstances of great annoyance. He was not called names, or it was not in his nature to stand anyone calling him names; it was everyone else was called names, and he would take good care that a full and complete account of what occurred at the last meeting would be published alongside of what would be published now in connection with the discussion. It was Mr. Downes's Roland for an Oliver, this little letter, in order that it might be put on the minutes; and he told the President, when he was clipping the bing—

The PRESIDENT: I object now.

Mr. BERNARD: Well, when you are revising—

The PRESIDENT: I ask you to protect me. I think that is a very called-for remark.

Mr. SIMPSON: Let him go on till he has done. That's what brought it on before. You get up, sir, at every moment.

The PRESIDENT: I am not in the habit of clipping the reports, a hat.

Mr. BERNARD: I will change it to "revise" if you like.

The PRESIDENT: I do not revise the report. I simply take the name of anybody in a matter of law, or anything that the Council do not wish to have reported; and I understand from my predecessors in office that that is what has been always done up to the present.

Mr. BERNARD: Excising and clipping are in my mind the same thing, and I say that, in justice to the Council at large, a full discussion of what occurred at the last meeting should be published in conjunction with this, and if it does not suit, I will take legal means to make the report that Mr. Macartney has supplied available.

The PRESIDENT: I took nothing out of the last report.

Mr. BERNARD: When you are clipping or revising the text report—

The PRESIDENT: I do not clip or revise the reports.

Mr. SIMPSON: This is only wasting time.

The PRESIDENT: I think if you are to address me in that way the best thing I can do is to go away. I do not cut or hack the reports.

Mr. SIMPSON: Everyone in the chair did the same thing.

The PRESIDENT: I read the reports over, and if any legal matter is reported I cut it out; but I never alter the reports in any other way, nor do I believe that any of my predecessors did so.

Mr. BERNARD: The words "cut out" are equal to the word "clipping."

A MEMBER: This is a melancholy exhibition.

Mr. BERNARD: If Mr. Downes has made a charge against me I am quite prepared to take the evidence of the gentlemen who were present.

Mr. CONYNGHAM: I propose that we go on with the business. Mr. Conyngham was about to speak further, but

The PRESIDENT said there was a motion before the chair. Mr. Bernard had claimed a privilege of speaking and had had it.

Mr. CONYNGHAM: I think we should adopt the resolution proposed by Professor Tichborne and seconded by Mr. Beggs. At the same time, on the last day the Vice-President, in place of signing the paper as he ought to have done, began to read the Council a lecture. We are not here to receive lectures from the President or Vice-President.

The PRESIDENT: The President gets lectures too. As to Mr. Downes not signing the resolution, I do not think there is any point in that. Mr. Ferrall brings me the documents that have passed through.

Mr. HAYES: It is only necessary for me to say, as to the statement of Mr. Downes that I got the matter reported simply for the purpose of law, that I deny it emphatically. I told Mr. Downes that such a thought never entered my mind; and such a thought never did enter my mind, and in the face of that he brings the matter forward again in the coolest way.

The PRESIDENT: Excuse me. He says you said it was not the only object you had in view.

Mr. HAYES: I said I had no such object, and that no such thing entered my mind. I think that Mr. Bernard, from what I heard in committee, as you yourself acknowledged, conducted himself in a way that was unimpeachable.

The PRESIDENT: Were you there?

Mr. HAYES: I speak as to what he said at the meeting this day month. He conducted himself in the most gentlemanly way, considering the provocation he had; and it should go to the public that Mr. Bernard was not as he is depicted by Mr. Downes.

The PRESIDENT: That is only your opinion, after all.

Mr. HAYES: It may be worth something.

The PRESIDENT: I do not know whether it is or not.

Mr. HAYES: You ought to be ashamed of yourself.

The PRESIDENT: You were primed on the opposite side of the question. You never heard the other side, and you condemned me without hearing me.

Mr. RYAN: I propose that we proceed with the business of the meeting, and let bygones be bygones. This is most unseemly.

The motion that Mr. Downes be requested to reconsider his resignation was then put, and passed unanimously.

#### CORRESPONDENCE.

Sir George Duffey had written, thanking the Council for their congratulations on the honour of knighthood which the Lord-Lieutenant had conferred on him.

Dr. Ninian Falkiner wrote, thanking the Council for having reappointed him professor of *materia medica* and botany, and mentioning that he hoped to have the services of Dr. Johnston as his assistant.

The PRESIDENT explained a correspondence which had taken place with Mr. E. M. Hodgson in reference to an application which had been made by Miss A. M. Kenny, of Castlecomer, chemist and druggist. Miss Kenny stated that her brother, Mr. P. Kenny, would have been entitled to registration as a chemist and druggist had he applied in time. She herself got registered as having been in business on her own account prior to 1875 and she said her brother was in business with her prior to 1875. She asked either that he should be registered or that the Council should give a letter stating that he would have been eligible to be registered. The object was for him to get

registered without examination in New Zealand. The fact was overlooked that it was only the pharmaceutical chemists' certificate that was recognised in that way. Mr. Hodgson was asked for evidence, and sent an invoice dated March 5, 1875, which showed that the business was then being carried on by the executors of a deceased proprietor, and that the applicants, who were his children, were not of age at the time. He (the President) did not see how the Council could say that they were entitled to be registered at that time. He thought the lady had been registered without proper information.

Mr. J. Murray wrote to ask whether a candidate rejected at a Preliminary examination this year would be obliged, on presenting himself again in January next or afterwards, to take elementary theoretical chemistry.

The PRESIDENT answered in the affirmative.

#### THE APOTHECARIES' DIPLOMA AND THE PHARMACEUTICAL CERTIFICATE.

Dr. H. A. Hadden, Medical Hall, Wexford, who seeks the licence of the Society, forwarded as evidence of his qualification a diploma of the Apothecaries' Hall, Dublin, granted in 1895, which he had received after serving a full term of apprenticeship and passing their examination.

The PRESIDENT said this matter had been adjourned for evidence. The diploma submitted contained nothing to show that it was given under the Irish Apothecaries Act of 1791. The Pharmacy Act only admits apothecaries who were under that Act, and he was not aware of any other under which the Apothecaries' Hall could give a diploma except the conjoint scheme.

Mr. CONYNGHAM: Would it not be wise to obtain an opinion of counsel before you give an answer to this gentleman?

The PRESIDENT: Would you give away the rights of your licentiates upon an opinion of counsel? If he wants to be registered let him apply to the Court to compel us to register him.

Mr. CONYNGHAM thought it would not be wise to rush into court about the matter.

The PRESIDENT: We should be ready to spend our last sixpence to protect our licentiates.

Mr. BERNARD: Have we received a decided answer from the Apothecaries' Hall yet in reply to our last application?

The PRESIDENT: No.

It was ordered that Dr. Hadden should be informed that pending the reply of the Apothecaries' Hall the Council could come to no decision in his case.

#### MR. ROBINSON'S RESIGNATION.

A letter, dated July 24, was read from Mr. T. W. Robinson, stating that as his term of office as examiner for the Licence of the Society had expired he desired to resign his other two examinerships (of Registered Druggists and Pharmaceutical Assistants). He thanked the Council for the support he had received from them in his efforts to make the examinations worthy of the Society.

Mr. BEGGS proposed that they should request Mr. Robinson to reconsider his resignation.

Mr. SIMPSON seconded the motion.

The PRESIDENT supported it, and it was unanimously agreed to.

#### ANOTHER BREEZE.

Mr. BERNARD moved—

That the report taken for the Council at the July meeting be handed to the journals for publication in connection with Mr. Downes's letter.

That letter contained only half the story.

The PRESIDENT: I will not put that.

Mr. BERNARD: Then I will give it as a notice for the next meeting.

The PRESIDENT: The regulations provide that nothing save what is on the agenda-paper can come before us.

Mr. BERNARD: It arises out of the work on the agenda-paper.

The PRESIDENT: It does not. You can send that formidable report that you have threatened to send.

Mr. BERNARD: I am not going to allow the publication of one half of the story only.

Mr. SIMPSON: My dear sir, you know the journal would not publish it.

Mr. BERNARD: Then I will write a letter for the next Council meeting.

Mr. Bernard then rose to leave.

The PRESIDENT: If you go, Mr. Bernard, we will have a quorum.

Mr. Bernard left, but two other members who had gone out of the room came back.

The PRESIDENT: I hardly think you will say that would have been right in putting that motion.

Mr. SIMPSON: You, as chairman, instead of listening to members who are speaking, strike in, and it takes up a great deal of our time.

The PRESIDENT: If the Council did not think competent to sit in the chair, they should not have me into it.

Mr. SIMPSON: I do not say you are not.

The PRESIDENT: I take your remarks as implying that I am not competent.

Mr. SIMPSON: There is no necessity for talking.

Mr. RYAN: Well, I think that is a very great point of respect to the chair. I think it is very uncalled for, or think there is too much personality indulged in here.

#### NEW EXAMINER.

On the motion of Mr. BEGGS, seconded by Mr. MONTGOMERY, Mr. Meredith Rountree Whittle, M.P.S., was appointed examiner in practical pharmacy.

#### ELECTIONS AND NOMINATIONS.

Dr. Joseph L. Baskin (Dundrum, co. Down) was elected a member of the Society, and the following names were submitted for election:—Pharmaceutical chemists, Messrs. R. H. Armon (Belfast), C. Garry (Mullingar, W. H. Hopkins (Blackrock, co. Dublin), J. McClelland (Ballyshannon), J. Michie (Blackrock), and C. O'Hagan (every Associate druggists: Messrs. William Burns (Ballymore), Annie McGavock (Glenarm), John O'Toole (Ratigan), James Waldron (Claremorris), and Michael McAlister (Ballyhannon, co. Mayo).

We have received the following from Mr. Bernard—

Sir,—In connection with the August meeting of the Council of the Pharmaceutical Society and Mr. Downes's letter thereto, in which my name is mentioned in such a manner as might mislead your readers, I enclose you a copy of a resolution which the President refused to accept and required notice of motion to be given for the September meeting. Proposed by J. J. Bernard, seconded by William Hayes—

That the report taken for the Council at July meeting be handed to the official Journal for publication in connection with Mr. Downes's letter.

The report referred to was one taken in accordance with the following resolution, which was carried by 9 votes to 2. Proposed by E. P. Murray, J.P., seconded by J. A. Walsh—

That a full report be taken of the discussion of Mr. Farrel's application by our reporter for the Council or any member at its discretion.

Voting.—For (9): Messrs. Tiebörne, Bernard, Conyngham, Kelly, Simpson, Hayes, Murray, an Porte. Against (2): Messrs. Grindley and Wells.

The necessity was felt of such a report being taken, because of a very serious matter arising for discussion out of the report from "Certificates Committee," where an attempt had been made to introduce the petty disputes between master and assistant as a valid reason for rejecting a candidate for Licence examination.

This attempt being unsuccessful in committee, about to be made at the Council meeting by the question, who, aided by Mr. Downes, opposed with vigour the report of discussion being taken.

The facts of the case are well known in Dutch circles, and your readers will no doubt yet have the opportunity of judging for themselves, independently of the winds as Mr. Downes's letter might possibly create.

Yours faithfully,  
J. J. BEGGS  
(Member of Council).

26 Clare Street, Dublin.

# British Pharmaceutical Conference.

## 34th Annual Meeting

### GLASGOW

August 9th to 12th. 1897.



LASGOW began modestly in one sense, for the reception, which was held in the Corporation Art Galleries on Monday evening, had little friskiness about it, but was artistic and hearty exceedingly. At least 350 people were there, and Dr. Symes with his young fe received them when they had ascended the first staircase of the Galleries. Dr. John Attfield, as a past President, was in the President's circle, and many young chemists, as well as old *habitués* of the Conference, were glad to see the genial editor of the *Pharmacopœia*. Other ex-Presidents of the Conference were not wanting. Mr. E. C. C. Stanford and Mr. N. H. Martin we noted, and with the latter was Professor J. Remington, of Philadelphia, looking years younger than he did when he was over eleven years ago, and with all his old heartiness. Looked, judging from the company, as if Glasgow were to have a record meeting. One observed Mr. Walter Hills, President of the Pharmaceutical Society of Great Britain and Mr. Wells, the President of the Irish Society, was on the spot too; while presidents of local pharmaceutical associations (or their delegates) were as thick as blackberries. It was a pleasant, if not an exciting, reception; the guests had many magnificent pictures to look at, most ample provision in respect to refreshments, and tasteful music by Mr. J. Ferrier's string band. One just regretted

and the conservatory at the end of the entrance-hall was soon dotted with eminent pharmacists smoking the pipe of peace; but there were more upstairs whose pipe was not so

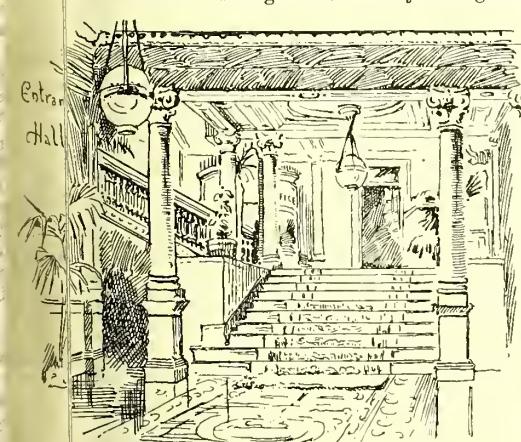


peaceful, but who heralded a successful meeting. One thing which could not fail to strike the stranger about the Glasgow arrangements was the apparent methodical thoroughness with which the local committee had formulated them: why, they even welcomed the visitors in these poetic lines:—

#### ODE OF WELCOME to the

*British Pharmaceutical Conference, Glasgow Meeting, 1897.*

Hail, sons of ancient alchemy,  
Ye lights of modern pharmacy;  
Saint Mungo's city and the West  
Of Scotland welcome you. Your quest  
Is not the worldly dream of old—  
To turn base metal into gold:  
Yet haply, should the fates prove kind,  
Elixir vitae ye may find  
In sights and scenes 'neath summer skies  
To thrill your hearts and charm your eyes;  
In Nature's beauteous display,  
And in congenial company.  
So, as ye strive life to prolong and bless,  
May sweet Hygeia follow in your train  
With ozoniferous airs; and evil spirits  
Which Scottish soil from stubborn old inherits,  
As water-kelpies, brownies, trolls, and fays  
Of doubtful temper, while ye sojourn here  
Be banished to grim haunts beynd your ken  
In Highland fastness, darksome linn and glen.



THE GRAND HOTEL.

that eas of gems and rare ironwork prevented the waltz which the music now and then inspired.

By 10 o'clock the guests began to wander back to the Grand Hotel, the headquarters, which seemed an ideal home,

But wood-nymphs, ham-dryads, sprites ethylic  
Who crown the fleeting hours with joys idyllic  
And love to revel in an atmosphere  
Of light and purity, guide all your ways,  
And wreath our Western islands, lochs, and kyles  
And freedom-loving hills in brightest smiles:  
So may your visit yield in recollections  
Most pleasant memories and dear reflections.

ALEX. LAING.

This was the "foreword" to the excellent civic guide-book to Glasgow which was distributed liberally among the members. We ought to say that the Grand Hotel proved inadequate for the accommodation of all the visitors, and two other hotels had to be chartered; but the Grand was the place where all foregathered for business and sociality.

## FIRST SESSION, TUESDAY.

10.12 A.M. TO 1 P.M.

THE sessions of the Conference ("sederunts" they are called in Scotland) were held in the large dining-hall of the Grand Hotel. There the chairman's table was placed at the side, and the seats for members were placed in horseshoe fashion. Seating accommodation was provided for about four hundred, and ultimately few chairs were left vacant; but the members were slow to come, the conservatory outside seeming hard to leave. But by 10.12 A.M., when Dr. Charles

Scotthmen are not partial to ceremonial display—so the Lord Provost attended the meeting with little ceremony as he attends his business (he is the principal in the business of David Richmond, steel-tube manufacturer, Glasgow), but it may interest those who were there as well as those who were not, to see Mr. Richmond in his official robes, covering his uniform as Lord Lieutenant of the county of the city of Glasgow. The Lord Provost is a pleasant but not ambitious speaker, and in his ten minutes' speech pleased his audience highly, then withdrew to attend to other public duties. Dr. Symes now gave the members a taste of his lingual facility and tact in felicitous welcomes to Professor Remington, of Philadelphia, and Mr. Champion, President of the Pharmaceutical Society of Natal, which gave opportunities of speech to these gentlemen, as well as to Dr. N. H. Martin and Mr. Walter Hills, and the meeting seemed to be highly pleased with this adventitious addition to the programme. So it was 10.45 before Dr. Symes could begin his address; and here we may leave our report to take up the tale.

### ORDER OF BUSINESS.

Address of Welcome by the Honourable the Lord Provost.  
President's Address.  
Reception of Delegates.  
Report of Executive Committee.  
Financial Statement.  
Report of Treasurer of the "Bell and Hills" Library and  
Report of Unofficial Formulary Committee, by W. M. Dunlop,  
F.C.S.  
Reading of Papers and Discussions thereon.

### PAPERS.

1. "Note on the Word 'Asafetida,'" by Professor John Attfield, Ph.D., F.R.S.
2. "Further Note on the Pharmacy of *Comum maculatum*," by E. H. Farr, F.C.S., and R. Wright, F.C.S.
- \*3. "Note on Some Soluble Compounds of Arsenic," by Professor Henderson, M.A., D.Sc.
4. "Further Observations on Oil of Citronella," by J. C. Umney, F.C.S., and R. S. Swinton.
5. "The Pharmaceutical Value of Sumatra Benzoin," by Thomas Dunlop, Ph.C.
- \*6. "Pharmaceutical Ethics—a Retrospect," by Leo P. Kinross, Ph.C.
7. "Some Observations on Organotherapy," by J. C. L.R.C.S.I., L.A.H.I., M.P.S.I.
- \*8. "Easton's Syrup," by R. Brodie.

All this business, except the papers marked \* was gone through, but not exactly in the above order, as shows.

### THE WELCOME.

The PRESIDENT, in introducing the Lord Provost, said: "We are honoured by the presence of the Lord Provost of Glasgow,



THE LORD PROVOST OF GLASGOW.

Symes (the President) entered with Lord Provost Richmond, there was a big gathering to welcome them. Accompanying the President and Lord Provost were Dr. John Attfield, Messrs. W. F. Wells, jun., E. C. C. Stanford, S. R. Atkins, and R. McAdam, Vice-Presidents of the Conference; Mr. John Moss, Hon. Treasurer; and Messrs. Naylor and Ransom, Hon. Secretaries. Business at once commenced with the official welcome. It is not customary in Scotland for Provosts, who hold the equivalent position of Mayors, to

who come here at some sacrifice of his ordinary duties, which are very heavy, to offer us a welcome. We are already very much indebted to the Lord Provost and to the municipal authorities of Glasgow for the great kindness and promptitude with which they placed at the disposal of the Local Committee, for our enjoyment, that beautiful picture-galler which we were pleased to view last night. (Applause.) The Municipal Art Gallery of Glasgow is one of which they may well be proud. I believe they are not even satisfied with the present gallery, but are going to build a greater one. (Applause.) Meanwhile it was a great act of courtesy to place these at our disposal, and added very much to our enjoyment, and his Lordship is now adding to our indebtedness by offering us a welcome to this great city. (Applause.)

Lord Provost RICHMOND was warmly applauded. His Lordship said: I come here this morning, at this the beginning of your Conference, with the very greatest pleasure and satisfaction. It is a pleasure to me to come, and I also feel it is duty on my part, as the head of this great municipality, to come here this morning and welcome you all from a considerable distance, many of you, and to give you a hearty welcome to this City of the West. Some of you may not have been in Glasgow before, and I hope the weather may continue good in order that you may thoroughly view not only the beauties of Glasgow, but of the surrounding district. (Applause.) I have seen a great deal of the world, and I am proud to say that within a moderate radius of forty or fifty miles you will find as beautiful scenery as you will find in any part of the world I have travelled. However, I do not speak for the country districts. I speak for the city. The citizens of Glasgow through me give you an open-handed welcome to this city, and I hope your meeting will be productive of good to your Association and be of great good to yourselves. (Applause.) I understand that this Association exists for the purpose of self-improvement in the business in which you are engaged, and that by encouraging research in a highly scientific profession you thereby promote not only increased knowledge but a friendly feeling among those engaged in the profession. It has been my duty and pleasure, during his last year in which I have been Lord Provost, to welcome to the city very many Conferences on similar lines to your own. We had a couple of weeks ago a Conference of Naval Architects. I accord to you as hearty a welcome as I did to these other Conferences. (Applause.) I can imagine nothing more conducive to good feeling, nothing more conducive to the advancement of science, nothing more conducive to good feeling between people in the same profession, than these annual meetings in various parts of the country. (Applause.) I am glad you do not confine yourselves entirely to the hard-and-fast rule of reading scientific papers. I think, after you have listened during the forenoon to these very learned papers on pharmaceutical subjects, you will deserve an afternoon's recreation on the Queen of Scottish lakes or some other district. ("Hear, hear," and applause.) I am glad this year you have had your meeting in this city. I understand it has been twenty-one long years since you held your Conference in Glasgow before, and I hope that those of you who took part in that first meeting here will feel you are getting as hearty a welcome at my hands as you did twenty-one years ago. I think, also, that possibly twenty-one years is too long a spell between the visits to Glasgow. I know the hospitality of my fellow-citizens, and I say this on behalf of my successors—I hope it will not be twenty-one years until we see you back again. (Applause.) You are to have entertainment along with business, I do not think I have ever seen a programme more skilfully prepared for seeing a great deal in a very short time. Those of you who have not seen our far-famed Loch Lomond will find it, on a beautiful day like this, one

of the most beautiful lakes in existence. (Hear, hear.) I know what it is to visit the far-famed Lake of the Thousand Isles in Canada, and the far-famed lakes in New Zealand; but if you do not say Loch Lomond is as pretty as any of them, I do not know what beauty is. (Applause.) In one of your excursions, also, you are going to take the opportunity of seeing one of our departmental works in this great city—you are going to drive out to see our waterworks. Glasgow people are very proud of their Loch Katrine water-supply; and it is a pity you have not an opportunity, and can not spare the time, to see all over these magnificent works. While I feel a pride in these works, I do not take any credit for them, because it was the wise men of a former generation who laid out these waterworks. What you so much look after is purity of drugs; well, in Glasgow you will at any rate find purity of water. ("Hear, hear," and applause.) I welcome you one and all to this city, and if there is anything that I, as the official chief of this great city, can do to make your stay more comfortable, your friends have only to ask me, and I will be delighted. I am very pleased that you enjoyed the use of the Corporation Galleries, and enjoyed also looking at the pictures. Your Chairman has indicated that we are not satisfied with these galleries, which is perfectly true. We have among these pictures some of very great value, and we hope by-and-by in a new gallery on a more suitable site additions to this gallery will be made. We are now erecting within a short distance of this building an art-gallery at a cost of 200,000*l.*, and we are to have in a few weeks a Royal visit by the Duke and Duchess of York, when the memorial-stone of this gallery will be erected. I hope when you next come to Glasgow you will see this building complete, and have an opportunity of not only seeing these pictures, stored at present in the old gallery, but a much better collection belonging to this great city. (Applause.) I thank you for asking me here, and I again welcome you one and all to the city. (Loud applause.)

The PRESIDENT rose to move a vote of thanks to the Lord Provost. Dr. Symes said: As I have stated, it is at some sacrifice of time that the Lord Provost comes here. He comes willingly, and we feel it is so, for he has given us a hearty welcome, and has made us feel thoroughly at home. (Hear, hear.) He has, further, extended an invitation to us which I hope many of us may live to accept. It is a great thing that in a city like this of Glasgow—which is really the commercial capital of Scotland—we have a large number of men busily engaged in business and in making money who are not utterly utilitarian. There is a great tendency with us who engage earnestly in work in one particular direction to drift into that particular direction and become one-sided. But we find men in Glasgow spending money in this kind of way, and in art and literature, and we have the sentimental side set before them as well as the practical side. They may well be proud of the water-supply of this great city. In fact, I believe it is the finest and best water that can be found in any city, although during the last few years many large cities have looked to this important matter. The ladies who are attending the Conference will have noticed what beautiful tea, what beautiful soft water makes—(laughter)—while the gentlemen know that it is an excellent water to mix with their whisky—(loud laughter)—and that is a very important matter. (Renewed laughter.) We may feel here that we have a water-supply which is sure to be of a healthy kind, and will leave Glasgow none the worse for its water, no matter what quantity we may drink of it. (Hear, hear.) I now ask you to accord a very hearty vote of thanks to the Lord Provost for coming here this morning. (Loud applause.)

The LORD PROVOST replied: I thank you one and all. I am sorry other public engagements prevent me hearing your President's address, but I have no doubt I will be able to get it full in the newspapers.

His Lordship then withdrew amidst general cheers, the members standing.

At a quarter to 11 the PRESIDENT rose to deliver his address, which occupied exactly an hour in delivery. It was occasionally applauded, and several of the points, especially those in respect to the recognition of pharmacists as compilers of the British Pharmacopoeia and the increased consumption of patent medicines, seemed to be particularly popular.

## PRESIDENTIAL ADDRESS.

Men of all conditions, societies of all denominations, communities of every description in the British Empire and its dependencies, have, during the present year, been celebrating the Diamond Jubilee of her Majesty the Queen. In so doing, retrospective views have been taken of the growth and progress of science, art, literature, professions, and commerce during this record reign. The tendency in the present rapidly progressive age is to rush forward at a pace which leaves little opportunity for reflection, for looking back on the experiences of the past and endeavouring to find therein some solution of the difficulties which beset us in the present, or suggestions to assist us in developments for the future. The maxim "Experientia docet," so often on our lips, finds little that corresponds therewith in our lives, and we are prone to forget the experiences of the past and the lessons which they would so readily teach. Then there is a certain amount of satisfaction and encouragement in reviewing the history of an institution, planned and developed by men of intellect and ability, many of whom are no longer with us, but whose works survive them and bear fruit, which it is our privilege to gather if we will. On the present occasion, therefore, I feel that it will harmonise with our environment, help us to realise our indebtedness, and stimulate us to greater zeal if we look back at

## THE PAST OF OUR ASSOCIATION,

not, it is true, for sixty years, but from its birth in 1863.

Several years previous to that date the late Mr. Schacht advocated "that for the best interests of the pharmacy of England it was expedient that the annual meetings of the Pharmaceutical Society should be held not always in one fixed place, but in rotation at the various towns of importance where its members reside."

This idea, after lying dormant until May, 1863, was enlarged upon by Mr. Richard Reynolds in an article published in the *Pharmaceutical Journal*, headed "Systematic Scientific Inquiry," in which he referred to the meetings of the American Pharmaceutical Association and the useful work it was doing, and suggested the meeting which subsequently took place at Newcastle. Although there was at first some hesitancy as to forming a distinct organisation which might detract from the interest felt in and the work being accomplished by the parent Society in England, it was soon felt that there would be abundant scope for both institutions, and some of the active members of the Society became the founders of the Conference.

A number of the leading pharmacists of that day, zealous for the good of pharmacy, desirous of doing something of permanent good for the calling they had chosen, self-denying and devoted to the cause, met at Newcastle-on-Tyne to inaugurate the British Pharmaceutical Conference, to formulate the objects for which it should work, and the conditions under which its operations should be carried on.

The functions decided upon were these:—

1. To hold an annual conference of those engaged in the practice, or interested in the advancement, of pharmacy, with the view of promoting their friendly reunion, and increasing their facilities for the cultivation of pharmaceutical science.
2. To determine what questions in pharmaceutical science require investigation, and, when practicable, to allot them to individuals or committees to report thereon.
3. To maintain uncompromisingly the principle of purity in medicine.
4. To form a bond of union amongst the various associations established for the advancement of pharmacy by receiving from them delegates to the annual conference.

Now let us consider how far these objects (which, I am sure, everyone will admit are admirable) have, so far, been accomplished. On thirty-three annual occasions, exclusive of the present, have those interested in the advancement of pharmacy been called together in twenty-nine important centres, bringing members resident in those various localities into closer contact with each other than had been their custom, and often establishing friendships where estrangement previously existed. In some instances new local associations have been formed, and although this does not mean that on every occasion they have grown and flourished, the good seed has been sown, and more or less enthusiasm

has been created. But the development and maintenance must necessarily depend on local effort. Then, where general fraternising influence is felt, and is so fully appreciated by us all that it scarcely needs mention. The "friendly intercourse" part of the programme may be regarded as an undoubted success. Some 700 papers have been read and discussed, all of deep interest, and the result of much labour and research. The Conference has always fostered investigations, and often made grants to promote research, the results of which have not been for the personal aggrandisement or pecuniary interest of individuals or for the benefit of the Conference itself but have been made free to all. The *Year-books of Pharmacy* before you, containing as they do reports of the progress of pharmacy at home and abroad year by year, are valuable to every member of our craft; and those who do not own these volumes and peruse them lose much, not only intellectually, but peculiarly. The "B.P.C. Formulary" has become a recognised work; some medical men use it regularly in their prescribing, and I trust that, before long, any more will do so. It has done away with that anomalous condition of things in which valuable drugs crop up during the intervals which occur between the various editions of the *Pharmacopæcia* were prepared in various ways and of various strengths, so that a prescriptive dispensed in different localities, or even by different pharmacists in the same locality, may have differed widely in character and strength. It has acquired a semi-official position, and the more loyal we are to it the sooner will uniformity prevail. Lastly, we have had

## THIRTY-THREE ADDRESSES

delivered to us by Presidents of the Conference, all eminent in the profession of pharmacy, men whom I feel considerable diffidence in following, whose discourses have been on matters of deep interest to us all, and may be read at any time with pleasure and profit. So much is this the case that I have recently perused them, and propose to-day to say a few words about each, and so recall the views of men whose names have become, as it were, "household words" amongst us, and many of whom, I regret to say, are with us in spirit no more. If in the performance of this task I appear to dispose of any man's wisdom in very few words, believe me it is not due to want of appreciation thereof, but, as our business is listening to and discussing the papers which are to come before us, I am anxious not to weary you with long and tedious address.

The first occasion, then, on which the founders of the Conference gathered together was in 1863, at Newcastle-on-Tyne. That model pharmacist,

## HENRY DEANE,

presided, and dealt with the objects, aims, and constitution of the Association and the advantages likely to accrue from its formation—namely, brotherly unity, the raising of the practice of pharmacy as nearly as possible to a profession in the public estimation, increase of knowledge, to induce members of our calling to exercise their ability and to avail themselves of the opportunities they may possess to investigate matters connected with their calling and to communicate the results to their brethren, and to improve and maintain the purity of medicines.

In 1864, at Bath (the first annual meeting), Mr. Deane dealt with the first British *Pharmacopæcia*, which had been published since the previous meeting, the great responsibility of chemists, under Lord Campbell's Act in case of accidental poisoning, and regarded the position as a serious one in which all were interested. He referred at one length to a case which had recently occurred in Liverpool, which seemed to strike terror into the heart of every member of the craft.

In 1865, at Birmingham, Mr. Deane again presided and made further reference to the *Pharmacopæcia*, which was already under revision by a committee. He also dealt more with the subject of accidental and also criminal poisoning, and further urged his hearers to strive to elevate the calling they had allied themselves to. He said: "There is no trade or calling with which I am acquainted that is capable of a high development as that we are privileged to follow." In referring to unhealthy and questionable competition, he mentioned "low prices" and the piracy and

tion well-known and recognised preparations, which had taxed the brains of those who had laboured to perfect and introduce them. He condemned the then growing tendency to use methylated spirit in medicinal preparations.

PROFESSOR BENTLEY, IN 1866, AT NOTTINGHAM, addressed the meeting at some length "On the Study of Botany in Connection with Pharmacy." He showed how useful it would prove in the detection of adulteration, in the utilisation of indigenous herbs, in the search for new medicines, in determining the best conditions of growth, and the most active and suitable parts of plants for use in medicine, and, in short, proved to the satisfaction of his hearers that the science of botany was an essential part of the education for our profession.

In 1867, at Dundee, Professor Bentley continued his subject, regarding it as a healthy mental exercise, and an agreeable and healthful recreation.

IN 1868 DANIEL HANBURY PRESIDED.

He congratulated those present on the success of the Conference, the membership having reached 550, and referred to the American and continental Associations which were doing similar work. He referred to the progress in science and pharmacy during the year, and passed on to consider a matter which he was a special authority—viz., the cultivation of cinchona and other medicinal plants in India.

In 1869, at Exeter, Daniel Hanbury again referred to the continual success of the Conference, the new Pharmacy Act, to the investigations to cinchona by Howard and Brough, and into ipsecuanha (which had then grown scarce and dear) by Lefèvre, the difference in medicinal value between dry and fresh drugs by Schonbrodt, and into aconitine by Merck, and precipitated sulphur by Attfield.

IN 1870, AT LIVERPOOL, MR. STODDART

dealt with the education which pharmacists should possess, both general and technical, remarking that "chemistry, botany, and physics were to us only second in importance to a well-grounded general education." He pointed to the application of the spectroscope in the examination of some chemical and pharmaceutical substances, and detailed the various subjects which had been under the consideration of the scientific world during the preceding year.

In 1871, at Edinburgh, Mr. Stoddart continued to advocate a higher development of our calling, and enumerated some instances of scientific work which had recently been accomplished, more particularly the synthesis of organic bases, pointing out that if we were to hold our own and render pharmacy a profession, we must show our aptitude for scientific research and allow it to occupy the position of a place due to the change from the monotony of the more common which fall to our lot.

IN 1872 MR. BRADY

pointed out that now the Year-book had been published it was no longer necessary for the President to review the progress of pharmacy during the previous year, and he proposed to deal with matters of present and future interest.

He took as his starting-point a remark which had recently been made by Professor Huxley, in an address which had reference to medical education, that "the standard British work on *materia medica* was a treatise *de omnibus rebus*, and that the science was a heterogeneous mass of facts referable chiefly to biological, botanical, and chemical science." He (Mr. Brady) argued that if this were so, the greater the necessity arose for pharmacists to acquire practical knowledge, and by inference the attainments of the pharmacist must be complimentary to those of the medical practitioner. He regarded the obtaining of the Pharmacy Act as a means of placing the profession of pharmacy on a sound scientific basis. Dealing with the examinations, he said "the Board of Examiners of the Pharmaceutical Society were fully alive to the importance of a higher standard of preliminary education." He thought that the Major should be regarded in the light of the fellowship of the College of Physicians and

Surgeons, or of the Pharmacien de la Première Classe in France. He disapproved of the Pharmaceutical Society accumulating its unused balance of income, and suggested its application to the endowment of research in the laboratories at Bloomsbury Square. He made several other suggestions which have since been carried out by the Pharmaceutical Council, and concluded by describing the proceedings of the American Pharmaceutical Association, which he had recently attended, and which were conducted on a more extensive scale than those of our own Conference.

In 1873 Mr. Brady enlarged on the success of the Conference in the first decade of its existence. He remarked on the proposal for a general fusion of Pharmacopeias, on the introduction of new remedies, and on the value of many indigenous remedies, to some of which attention had recently been directed; on the introduction of cinchona-plants into India and Java by the British and Dutch Governments, and the success attending the same. He criticised the new regulations of the Pharmaceutical Society's School whereby a five months' course

of training for the purpose of preparing men for the Minor examination had been instituted, and compared the preparation and examinations required in Germany for obtaining the qualification with our own, to the disadvantage of the latter.

IN 1874 MR. T. B. GROVES

explained the reason for meeting in London instead of Belfast, where the British Association was then holding its meetings. The great differences which then existed between the apothecaries and the chemists and druggists of Ireland rendered it difficult to bring about that concerted action which was necessary to render the Conference meeting a success. He reviewed the condition of the School at Bloomsbury Square, and expressed his disapproval of shortening the course of lectures, &c., adding some excellent remarks on the training of youths entering the calling of pharmacy. He then justly and severely criticised the working of the Food and Drugs Act, and showed how the zeal of the inspector and analyst often exceeded their discretion; concluding with some remarks on the growing sale of patent medicines and on the proposed International Pharmacopoeia.

In 1875, at Bristol, Mr. Groves delivered his second



CHARLES SYMES, PH.C., PH.D., F.C.S.

address, congratulating the Conference in again being in touch with the British Association; he feared that had it been otherwise the meetings would soon prove a failure. Speaking of provincial associations, he suggested that when short of papers for their meetings they may continue the consideration of some of the half-discussed papers which had come before the Pharmaceutical Society. He urged the desirability of earlier closing, and expressed regret that the Council of the Pharmaceutical Society had not seen fit to adopt Mr. Schacht's proposal to institute a practical pharmaceutical laboratory for students at Bloomsbury Square. Reference was made to the passing of the Irish Pharmacy Act and the founding of the Irish Pharmaceutical Society. Referring to the then recent meeting of the International Pharmaceutical Congress at St. Petersburg, he expressed a fear that it would be many years before its chief object would be accomplished—viz., the publication of an International Pharmacopoeia. He suggested that the Government should make money grants for physiologically testing new remedies by a competent commission. The new drugs mentioned in particular were jaborandi and its alkaloid, discovered by Mr. Gerrard, and araroba or goa-powder. The obituary list included the name of that great pharmacologist, Daniel Hanbury.

IN 1876, AT GLASGOW, PROFESSOR REDWOOD

referred to the ethics affecting "counter-practice," to the knowledge necessary for selecting special foods for those who required them, and to the effect of investigation on our drug-supplies from abroad, and also to the separating of the active principles of drugs. He expressed a hope that science would soon enable us to unlock the secret of artificially preparing the vegetable alkaloids, and passed on to consider the germ theory of disease as enunciated by Professor Tyndall, and the operation of antiseptics and disinfectants in combating various maladies. He concluded by referring to the British Pharmacopoeia, and supported the claims of educated pharmacists to assist in the production of its formulae.

In 1877, at Plymouth, Professor Redwood dealt with the early history of pharmacy from the middle of the eighteenth century; its relation to early medical practice, the controversies between those representing the two branches of the healing art, and the ultimate separation of the two into distinct professions.

IN 1878, AT DUBLIN, G. F. SCHACHT

said he would endeavour by consideration of the past and present to look into the future. He took as his theme "The Business Life of a Pharmacist," and traced up from his schooldays his ideal of what such a one should be, and the possibilities which surrounded him in his career. He drew a mental picture of a model pharmacist with high aspirations for his calling and a strong consciousness of duty.

In 1879, at Sheffield, Mr. Schacht took the counterpart of the previous address, and considered "The Pharmacist from the Public Point of View." He held that it was a loss not only to himself but to the medical profession and the public that he was not more highly appreciated by both. He felt that our social status would be much better and a professional character attained more readily if both medical and pharmaceutical students had to go through the same early training and pass the same Preliminary examinations.

IN 1880, AT SWANSEA, MR. W. SOUTHALL

took "Ancient Pharmacy" as his theme, giving a number of interesting quotations from the works of Celsius.

IN 1881, MR. RICHARD REYNOLDS

gave a highly interesting address, taking first the old Pharmacopoeias, the polypharmacy which obtained in olden times, the reaction which occurred, and the gradual building up of our *materia medica*. He spoke of the diversity of strengths which occurred in new and unofficial remedies, and regarded the *Year-book of Pharmacy* as the work in which semi-official formulae should be published. He referred to the diminished cost and increased use of drugs which were at one time very expensive, the smaller number of prosecutions under the Food and Drugs Act, the increased facilities for early sound education, and suggested united action in passing

a Bill through Parliament which would do away with the anomaly of the store question.

IN 1882, AT SOUTHAMPTON, PROFESSOR ATTFIELD

dealt with some vital questions which lie at the foundation of our art. As to the utmost efficiency in collecting, manufacturing, and distributing drugs, and whether the public and the State were served to the best advantage under the existing state of things? He made some valuable suggestions in reference thereto; also on pharmaceutical legislation and organisation.

In 1883, at Southport, Professor Attfield considered "The Future Supply of Drugs to the Public," taking the relation of the State to pharmacy as the second part of his subject. He considered that the Pharmacy Act of 1868 was a failure and required speedy amendment, and that nearly all drugs should be included in its schedules. The Professor had collected evidence from some two hundred districts in Great Britain, showing that drugs were being sold largely by grocers and other tradesmen at a marginal profit, and that chemists' businesses had largely depreciated in value. He then went on to consider some of the causes of depression in the drug-trade, such as the tendency amongst medical men to prescribe more concentrated medicines, the smaller quantity of drugs taken by the public, the increased number of charitable medical institutions, the tendency to prescribe more proprietary articles, and the prominence which chemists had been in the habit of giving to so-called patent medicines. He considered the remedy would be found in an extension of the present Act.

IN 1884, AT HASTINGS, MR. JOHN WILLIAMS

treated of matters which the world of chemical science around had been doing, and which had more or less bearing on pharmacy, mentioning more particularly the artificial production of substances representing several organic bodies. He then referred to the nitro-substitution compounds, such as nitro-glycerine and nitrite of amyl, being introduced into medicine; to artificial salicylic acid, which he did not consider possessed equal medicinal value to the natural product; to the recent liquefaction of some of the more refractory gases; to the vital processes in plants; and to the approaching new Pharmacopoeia, emphasising the claims of pharmacists to official recognition in the production of the work.

IN 1885, AT ABERDEEN, MR. J. B. STEPHENSON

commenced by making some observations on the responsibilities placed on the Pharmaceutical Society by the State, and considered that the Society, in the fulfilment of these duties and responsibilities, had power to regulate the examinations, even to the extent of imposing a curriculum, if it was thought desirable, and the approval of the Privy Council could be obtained. He dwelt on the advantages of the differentiation of pharmacy from the practice of medicine, and pointed out that fully forty years before that date Edinburgh had taken the initiative in that respect. He advocated that pharmacists should be appointed on the Pharmacopoeia Committee; and, further, that pharmacy, being a professional service of those who practised it, should receive professional remuneration. His concluding remarks had reference to the newly-published Pharmacopoeia.

IN 1886, AT BIRMINGHAM, MR. GREENISH

also referred to the Pharmacopoeia, and expressed an opinion that it did not represent the advance which had taken place in pharmacy since the issue of the previous one. Passing on to consider the work of the Conference, he suggested that it may be of use in solving a difficulty which was sapping the foundation of pharmacy—viz., the prescribing by medical men of factory-made articles, by publishing certain forms under its authority. On the question of education, he suggested that the country should be mapped out into districts, and a committee be appointed in each district authority to arrange for suitable educational provision in each district for the would-be pharmacist.

IN 1887, AT MANCHESTER, MR. S. R. ATKINS

presided. It was the year of the first Jubilee of Her Majesty, and the address dealt with the history of chemi

and other sciences, and of the Pharmaceutical Society during the period of the Queen's reign, and some remarks, historical and prophetic, on our position and calling. Reference was also made to the work of the Conference, and to the recently-introduced new remedies. He advocated an extended Preliminary examination, and hoped for greater unity amongst the members of our craft.

IN 1888, AT BERNER

took his text "The Relation of Pharmacy to Pharmacists," to ourselves, and the education and training most likely to improve that relationship. Whilst duly considering the high claims which the professional side of our calling had for us, he took the very practical view that we had to live by that calling. He mentioned the processes which went to work, which rendered it more difficult to do this as time rolled on, and then passed to consider how a better training and higher development of our art opened up opportunities for us. He quoted the opinions of a number of eminent men in different countries in support of these views.

IN 1889, AT NEWCASTLE-ON-TYNE, MR. CHAS. UMLEY

based his address on one of the objects of the Conference—viz., "To maintain Uncompromisingly the Purity of Medicine." Starting with the seventeenth century, when empiricism reigned supreme, he traced some of the causes which led to improvements in the purity, character, and preparation of medicinal substances, particularly in modern times the improved Pharmacopœias—that published in 1851 being in his opinion a model one—the working of the adulteration Act, and the more reasonable Excise regulations which now existed. He advocated more extensive pharmaceutical research, and a more suitable training for chemists so as to enable them more frequently to fill the position of public analysts, and thought that this higher training would inspire the public favourably as to the importance of our calling. He approved of examinations, but felt that they were not an unmixed blessing so long as young men were content with the minimum of knowledge which could enable them to pass them.

IN 1890, AT LEEDS, MR. UMLEY, in a short but very suggestive address, treated on "Fashion in Medicines," mentioning some valuable remedies which had been discarded in favour of newer but not always better ones. He condemned the growing tendency to prescribe ready-made compounds, and to adapt the disease to the remedy rather than the remedy to the disease. He mentioned that the British public spent annually about one and a half millions sterling in so-called patent medicines, and advised the abolition of the patent-medicine stamp, and concluded by pointing out that the Conference had done something towards bringing about a better appreciation of the pharmacist by the medical profession.

IN 1891, AT CARDIFF, MR. MARTINDALE

first referred to the pharmacist in relation to the public, and pointed out that he rarely shared in the gratitude felt by the patient towards the doctor, nurse, and friends who tended him during a severe illness, but he considered that we might gain more appreciation in our relation to the medical profession. He then dealt with the relation of the chemist to the physiologist, reviewing the introduction and use of some synthetic remedies, more especially the coal-tar products, also the use of the various lymphs in the treatment of motic diseases, &c. He remarked on the tendency of the medical profession to ignore the necessity for a knowledge of drugs and preparations, and considered that this would deprive them of any confidence in prescribing them, as they would thus become a prey to advertising manufacturers of ready-made mixtures, &c. He took exception to the increase of synonyms in the British Pharmacopœia, and concluded by reference to the necessity for extension in the knowledge required for the Preliminary examination.

IN 1892, AT EDINBURGH, MR. STANFORD

dealt with a variety of interesting topics: The rise and progress of the Conference, national progress, including post, telegrams, tramways, gas, electricity, steam, hygiene, chemistry, photography, some manufactures, education

(general and pharmaceutical), pharmacy, botany, patents, poisons, ptomaines, &c. Mr. Stanford held that a pharmacist could not be over-educated, and expressed a regret that there were not more pharmaceutical chemists, mentioning Glasgow in particular, where there was only one pharmaceutical chemist to 41,012, whilst in Edinburgh there was one in 7,061.

IN 1893, AT NOTTINGHAM, MR. CORDER,

after some preliminary remarks on what he regarded as a proper apprenticeship (seven years being too long and three years too short a period), and insisting on the necessity for good early training, took up as the subject of his address "Some Herbaceous Plants in Common Cultivation, especially those Connected with Medicine." Mr. Corder traced the early history of botany as a science, with Aristotle as its founder, and then passed on to review the early herbs. The "Grecian Herbal," by Treveris, in 1516, being the first published in English, Turner's in 1588, Lyte's translation from the Dutch in 1583, and Gerard's in 1597, all passed under review, and some interesting comments were made on them. He recommended the study of Gerard in particular, giving some curious quotations therefrom, and concluded by referring to some indigenous plants.

IN 1894, AT OXFORD, MR. N. H. MARTIN

took for his text "Medicine and Pharmacy," and dealt frankly and boldly with some of the evils which existed in both professions in their individual capacities, and in their relation to each other. He showed that the condition of pharmacy in its own special domain was unsatisfactory, and attributed this to "the unbridled and dishonest competition in prices," brought about by the increased use of proprietary medicines, and the publicity given to them by members of our craft. He held that the reason medical men prescribed them to such an extent as they did was because the medical student had insufficient training in the knowledge of the properties and uses of drugs. Mr. Martin pointed out the absurdity of attempting to practise pharmacy on a trade basis, and yet retain the reward which properly belonged to professional services. He held that in the Pharmacy Act the public accorded to the pharmacist a professional standing, and adherence to that position was the only safe ground on which future pharmacy could stand. He pointed out a course of training which he held to be essential to the individual who should enter our craft, and the principle on which his remuneration should be based, and concluded with a tribute to the usefulness of the British Pharmaceutical Conference.

IN 1895, AT BOURNEMOUTH, MR. MARTIN again dealt with pharmacy. He considered that its condition in this country was most unsatisfactory; that it held a position between a false assumption of science and the whirlwind of modern trade. He referred to the dignity of pharmacy, and considered that the 1868 Act had failed to maintain that dignity by not providing for a curriculum of higher training for those who were to enter our craft. He held that the Major examination was the only one which should admit a man to membership of the Society, and advocated a still higher examination for a fellowship. He had doubts as to the success of Federation of Provincial Associations, and also of provincial schools until a new Act demanded a suitable training. He next considered the duties in pharmacy and the relation of pharmacists to the Pharmacopœia, expressing a doubt of the success of attempting to train young pharmacists in research-work, suggesting that it would be better performed by those of more mature experience, and concluded by reference to the pleasures which accrue to those who practise pharmacy with a real love for the art.

IN 1896, AT LIVERPOOL, MR. MARTINDALE \*

remarked on the meeting in Liverpool twenty-six years previously, mentioning in particular an interesting pharmaceutical exhibition very free from objectionable details. He then proceeded to review the changes which had occurred and the medicinal substances which had been either newly introduced or had, from rare specimens, become common since that meeting. "The first practical Pharmacopœia," that of 1867—new active principles, reduced cost of and

commerce in drugs, cost of distribution, progress of elegant pharmacy, medicines in relation to medical practice, the value of medicines as estimated by the medical practitioner in the treatment of disease, advertising pharmacy, and the future of pharmacy, which he considered somewhat obscure—all received attention. The address was delivered so recently that it will be fresh in your memories, and I need not detain you with further details.

Having thus briefly reviewed the various presidential addresses, let me give you a few historic facts concerning

#### THE PROGRESS OF THE CONFERENCE.

At first, a very small volume of "Proceedings" was published, and the annual subscription was 5s. Now, we have a very complete *Year-book*, containing a review of chemistry, *materia medica*, and pharmacy, together with a valuable collection of notes and formulæ, which should be found in the pharmacy of every member of our craft, and the subscription is only 7s. 6d.; so that in this respect we are giving far more value to-day than in the early days of our existence. At the first annual meeting, held in 1864, there were 150 members, a credit balance of 10*l.*, there were four days' sittings, and twenty-eight papers were read and discussed. A year later, the membership had increased to 350, and by the end of the following year to 400; in 1867 to 478, and in the fifth year of its existence to 562, with a credit balance of 35*l.*

Passing on to 1873, ten years after its foundation, the membership had risen to 2,000, the credit balance had disappeared, and had left in its place a debit one to the extent of 4*l.*, and the subscription was increased to 7s. 6d. In 1874 a circular was sent to every member of the trade who was not already associated with the Conference, and as the result 500 new members were added; at the same time 115 were struck off the roll on account of being considerably in arrears with their subscriptions. In 1876 there was a credit balance of 430*l.*, and the committee anticipated at least a further sum of 200*l.* in excess of expenditure on the current year. Grants amounting to 75*l.* were made in aid of research. In 1880 it was decided to issue a general index of the *Year-books* which had been published from 1870, and for the six numbers of "Proceedings" which had been issued before that date. In 1883 (twenty years after its foundation) colonial secretaries were appointed, and at the annual meeting 359 ladies and gentlemen were elected members, bringing up the total again to 2,000; the credit balance was then 222*l.* In 1884 the committee had under consideration the growing tendency to lavish expenditure in entertainments at the centres where the Conference held its meetings, and a resolution was passed considering this undesirable, and expressing a view that the meetings should be held wherever mutual advantage was most likely to arise, irrespective of financial considerations. In 1885 150 colonial members were elected, and the general index (which had been delayed) was published, costing the Conference 150*l.* over and above the amount received on sales at 2s. 6d. each. In 1886 the first reception by the President was held on the evening preceding the Conference meeting. In 1887 the first "Unofficial Formulary" was published. In 1890 there were 1,500 home and 200 foreign members, a credit balance of 86*l.*, and twenty-nine papers were read. In 1893 (thirty years after its foundation) the committee were able to report as follows:—"There is no evidence of any decline in the interest taken in the work of the Conference." In 1896, still fresh in your memory, the home membership was 1,330 and the foreign 180, with a debit balance of about 50*l.* Apart from this, the meeting was a very successful one, twenty-two papers being read and discussed.

Such, then, is the structure which in thirty-three years has been built up, and this a somewhat imperfect record of its work. The Conference has never possessed—has never desired to possess—any legislative powers to regulate the conduct of our business; that is the province of the Pharmaceutical Society. But from its inception it has, within the lines laid down as to its objects, recognised the fact that we have to live by our craft, and it has contributed considerably to that end.

There is one feature which predominates in the various addresses given—viz., the advancement of our calling by education, and if

#### PHARMACEUTICAL EDUCATION

has kept pace with general education during these intervening three years, assuredly we ought in the present day to feel some of the good results hoped for. There now exists a Pharmacy Act demanding compulsory, in the place of voluntary, examination, which has produced a larger number of men with a more complete knowledge of their business, and no one can doubt that, as a body, we are better educated than formerly.

But in this country reforms move slowly, and, although it has been recognised almost from the first that the Preliminary or Arts examination provided too low a standard for those who were to enter our calling, it is only within the last few months that any decided step has been taken to raise it, so that the entrance to the business has been left very simple; whilst the stringency of the Minor, or Qualifying, examination has been increased, so that men have only to become aware of their want of education for the business years after they have been committed to it; hence, in my opinion, the large percentage of failures which occur, although there has from time to time been very determined attacks on the practice which is described by that ugly word "cram," our system of examination has offered a premium to it.

A youth passes his Preliminary on leaving school and becomes an apprentice, when, if he is determined to stay, or his master insists on his doing so, all may go well. But the chances are that he thinks very little about an education for which he cannot possibly present himself till the lapse of some five or six years, and he drops into that common and alluring belief that a large amount of recreation is necessary for his health and happiness, and with the imbition of this belief the habit of study which he has acquired, and which has become quite easy to him, disappears. Neither, as a rule, does his master feel the responsibility of seeing him through an examination which the youth cannot pass until he is out of his apprenticeship, and no longer under his care. As a result of all this, when he approaches maturity he "crams" in a lot of knowledge such as is required by the examiners, and he may pass at that knowledge, like so much undigested food, doing little good, and he may still remain uneducated in his art. We want examination to be regarded not merely as a test of a man's knowledge, but also as a part of his education if

#### AN INTERIM EXAMINATION

were instituted which could be passed, say, two or three years after registration as an apprentice or student, and which would comprise some of the subjects now taken in the Qualifying examination, there would be an inducement for a youth to study from the commencement of his business career, there would be a gradual building up of his knowledge, it would become part of himself and would be permanent. Hitherto it has been assumed that this could not be done under the present Pharmacy Act, but such a view appears to me a mistake. The Act has practically nothing to do with the details of the examinations, it provides that they shall be conducted according to the provisions contained in the by-laws. Mr. Stephenson, in his address, expressed an opinion that the provisions of the Act were wide enough to enable the Council to introduce a curriculum of study if it were considered desirable and met the approval of the Privy Council. And I now express my conviction that it would be perfectly legal to further divide the Qualifying examination. As a matter of fact, it is in practice now divided, the candidate often passing the portion in one week and the other portion during the next week; and I feel sure it would be for the benefit of the candidate if the examination were arranged so that two or three years intervened instead, and the legality of such arrangement would be supported by the present by-laws. Section XI., paragraph 1, reads as follows: "The Register shall receive, and for at least five years preserve, the lists issued by the examiners, signifying that examinations parts of examinations have been passed."

Excellent as the Qualifying examination now is, I believe there is still a want of more complete means of testing the power of the candidate to apply the knowledge he possesses and the result of such would be that we should then have less complaint of the deficiency in practical knowledge

examined men, the qualification would be better appreciated when attained, and would serve the owner a more useful purpose through life than it now does.

We are on the eve of the publication of

#### A NEW PHARMACOPÆIA,

and no doubt it will, in common with previous ones, receive a due amount of criticism. The last work was regarded in one at least as a failure, whilst in some others it was regarded as a success. Clearly, therefore, opinions differ to its merits. There has been an effort to make the forthcoming work more fully appreciated throughout the British Empire and its colonies by including formulæ used in other than the "home land." Whether this be published at once or completed by an appendix there will be abundant opportunity for discussion, and we may hope that it will receive a better endorsement than did the first British Pharmacopœia. It is to be regretted that pharmacists have not yet been accorded the position which justice demands that they should possess as members of the Pharmacopœia Committee.

The Pharmacopœia is a pharmaceutical and not a medical work, and yet no pharmacist has a legal standing or position in its production other than that acquired by courtesy. What would be thought of a work on medical practice polished "by authority" by a committee of pharmacists aided by medical men? The position is an anomalous one, and must sooner or later be corrected. The sooner the better will it be for all concerned.

In several addresses the rapidly-growing consumption

#### CALLED PAINT MEDICINES

was referred to and the impression seemed to be that, so far as chemists were concerned, the sale of them had most become a thing of the past; that having been unwise enough to give them an undue prominence we had contributed to the increased sale, and that it had passed from us by competition from grocers and others. This to some extent is so, and that not altogether to the moral disadvantage of our calling; but we cannot get away altogether from what is known as the Medicine-stamp Act, and there exists a general impression that its operations hamper us considerably in the legitimate conduct of our business. At first sight it certainly does appear to be an unfair impediment to trade that we cannot label fully, describe, and recommend the goods we sell without either bringing them into the category of "quack medicines," by the use of the duty-stamp, or incurring the risk of infringing a somewhat complicated Act of Parliament, resulting in an Excise prosecution.

Attention has, however, been directed to some of the which may follow its repeal if we were able to obtain

it, and further there is a provision in the exemption clauses which I think well worth consideration, as we may find the Act a friend in disguise. It is really a Drugs Act, and covers all kinds of medicinal substances, both simple and compound; then there are exemptions comprised in three paragraphs. The first, to certain drugs in the book of rates, the second to simple drugs which can be sold by surgeons, apothecaries, chemists or druggists, and persons holding a licence to sell medicines chargeable with stamp-duty. The third exempts all mixtures, compositions, and preparations the properties of which are known and recognised, and for the preparation of which no secret is claimed and the title of which is common property—so long as they are sold by a surgeon, an apothecary, or a chemist or druggist. Here, then, it seems to me we have a distinct recognition of our calling as a responsible profession, in a provision whereby we enjoy the privilege together with surgeons and apothecaries of being able to sell compounded drugs under the conditions specified without the use of the duty-stamp, whereas such compounds cannot be sold under any conditions by grocers and other traders without bearing the medicine-stamp.

In several addresses which followed the passing of

#### THE PHARMACY ACT

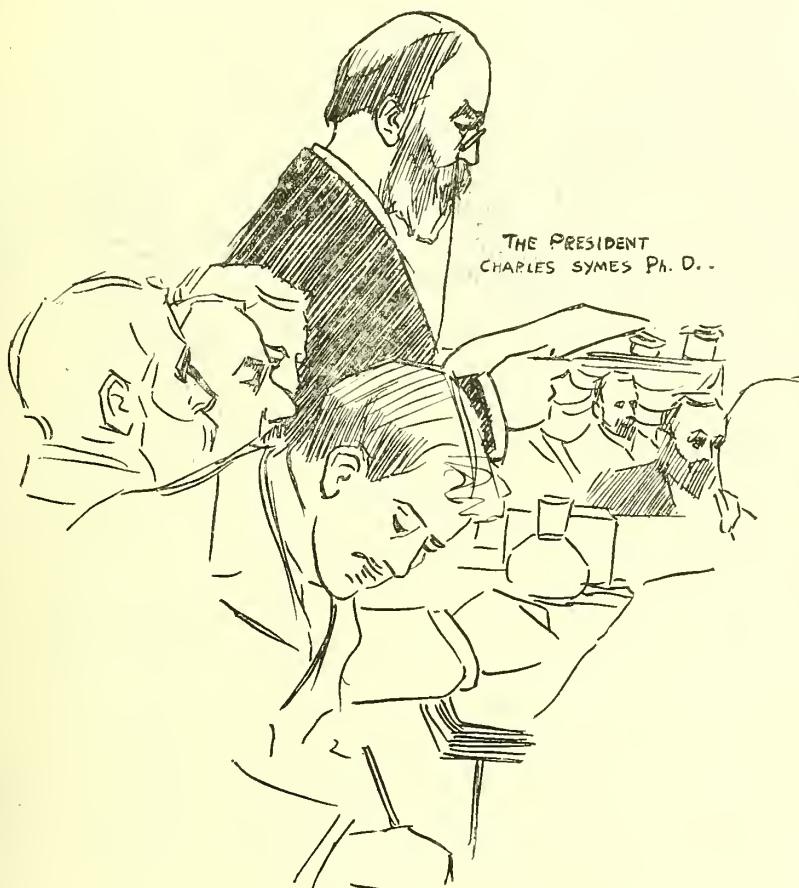
In 1868 great hopes were expressed that it would not only elevate our calling and give it a decidedly professional character, but it would protect our interests also. Now after more than a quarter of a century we find the results of its operations to be very different from those which were anticipated, and considerable disappointment has followed. As a body we are certainly better educated than when the Act came into force, but the titles which we thought had been so thoroughly and completely safeguarded, whilst

denied to unqualified individuals, can be used by stores with impunity. The decision of the House of Lords, which gave stores the right to sell poisons at the hands of qualified assistants, will, I fear, never be reversed, but the use of the title "chemist" by a directorate on which there is no qualified man is a gross misrepresentation, and one which in common justice to the public ought to be prevented.

The next subject which has received attention in many addresses is the

#### CUTTING COMPETITION

in prices, to the detriment of the business. Mr. Deane mentioned this in his first address, but if he had occasion to do so in his day, when there was no store competition, what would he think of the present state of things? Dr. Attfield dealt largely with the subject, and suggested as a remedy that nearly all drugs should be scheduled under the Act, so



that they could be sold only by registered persons. Mr. Martin aptly put it that for professional services we ought to receive professional remuneration, but not so for commercial transactions. If, however, we separate the commercial portion of the average chemist's business, we find that the percentage of profit on it is far less than that obtained by the draper, ironmonger, &c. If this cutting competition were limited to stores we could hope that some remedy may be found, but it is the competition within our own body that it is most difficult to deal with.

In his first address Mr. Deane justly complained of the piracy and imitation of well-known and recognised preparations which had taxed the brains of those who had perfected and introduced them. In those days this class of medicines were not numerous, but they were really good and were prescribed by the medical profession. Now good, bad, and indifferent, their name is legion, and Imitator & Co. are as busy as ever, so that it would be difficult to say we have progressed in this respect.

#### READY-MADE FORMULE

in a variety of fancy forms are now thrust on medical men by agents who were at one time known in America as "drummers," but who have more recently appropriated the title of "missionaries," as they regard the conversion of the medical profession to a belief in their nostrums as missionary work. This has brought about a state of things complained of in several addresses—Mr. Greenish mentioning the growing use of "factory-made articles," Mr. Martindale showing how medical men were becoming a prey to advertising manufacturers of ready-made articles, and Mr. Martin mentioning the tendency amongst medical men to adapt the disease to the ready-made formulae of some special manufacturers. Much as this is to be regretted, I believe it is the reaction from empiricism and over-dosing. Those branches of science which tend to assist the medical man in a correct diagnosis of disease have made rapid strides in recent years, and the importance of these has been so fully appreciated and a correct diagnosis has assumed such importance in the medical mind as to force the question of drugs into a very minor position. This, like every other reactionary extreme, will in due course find its level, and time will be the chief factor in determining the result. Meanwhile, it is not the duty of the pharmacist to stand still and wait, not to devote his energy and ability to pharmaceutical quackery, but by integrity, legitimate enterprise, and earnest scientific work to raise the standard of his calling, and thus facilitate the acceptance by the medical profession of a state of things in which he will reap the reward of his labours, and both professions will be accorded an enhanced amount of confidence and respect by the public.

#### CONCLUSION.

I cannot conclude this address without mentioning our indebtedness to Thomas Hyde Hills for his liberal donations in the early years of the Conference, whereby it was enabled to commence the endowment of research, and has since been enabled permanently to make a present of books to the association in each locality in which it holds its meeting; also to Mr. Thomas Hanbury for his annual present of books for a similar purpose. Neither must I omit to say how much we are indebted to the Honorary Secretaries for the success which the Conference has achieved. To their care, watchfulness, and exertions through the vicissitudes of its career, its continued existence is largely due, and that it is to-day enabled to render so good an account of itself.

During thirty-three years the Conference has promoted the scientific advancement of our calling, has fostered friendly intercourse amongst us, has shown a deep interest in all matters affecting our material welfare, and should command the gratitude, sympathy, and membership of the whole craft.

Would that I could end this discourse here, but justice demands that I detain you a minute longer in the performance of a painful duty. This Conference, pharmacy generally, and the whole scientific world are the poorer for losses by the unsparing hand of death since our last meeting. I cannot enumerate them all, but the name of George F. Schacht is so familiar to us, and the fine intellectual figure of the man has been so constantly before us, that it seems

but a dream that he has passed away and we are to meet him here no more. Full of honourable and useful years and a benefactor to his craft, he has left deep footprints in the sands of time. F. M. Rimmington, of still riper years, has recently gone to his rest, after a long and useful career as a pharmacist, public analyst, a former Vice-President of the Conference, and for some years a member of the Council of the Pharmaceutical Society. Arthur J. G. Tyrer (whose father is so well known to us, and whose brother is a contributor to our meetings) was a young man of considerable ability and promise; he had prepared a very excellent paper, which I understand was to have been read at this meeting but for his premature and tragic death.

The Philadelphia College of Pharmacy, in which we all feel much interest, has lost its successor to Professor March, Dr. Bastin, and an aged Vice-President, Mr. Robert Soemaker. This does not complete the list; but I have said enough on this solemn subject to suggest that it is important for us all to work while it is yet day, for the night comes when no man can work.

#### A VOTE OF THANKS.

Mr. E. C. C. STANFORD moved that the Conference and Dr. Symes a very hearty vote of thanks for his able address. They all knew they would get from Dr. Symes something that they could listen to with great pleasure. If he were able to criticise the address, Dr. Symes had considerably taken the wind out of his sails by criticising the addresses of all the Presidents before him. (Laughter.) All he could say of it was that it was worthy of Dr. Symes and worthy of the occasion, and he thought he could promise a very large success to the meeting in Glasgow because it had started in the right way by the right man. (Hear, hear.) He could not help asking himself, when Dr. Symes was reading the history of the Conference, how many of the small band who met thirty-three years ago in Newcastle and founded the Conference were still living. They had some very noble men who formed part of that small band. They could scarcely credit ten that it would grow to such a meeting as this, and that after thirty-three years their valuable *Year-book* would be published. He supposed he must say something about Glasgow water. (Laughter.) Water was a more important thing than some of their friends thought, because when the British Association met in Edinburgh lately, a celebrated engineer remarked that he had been there a fortnight and had been offered every conceivable sort of drink but water, and he had come to think that there was not a drop in the city. (Laughter.) They could not say that of Glasgow. They would see to-morrow that there was plenty of water in Glasgow, and that the Glasgow police-list, though very stringent, had no clause in it to prevent a large amount of water being administered for internal application. (Laughter.) He had heard Glasgow spoken of as the finest city in the world. It was not a bad city. He hoped this would be an enjoyable meeting; he might add, if they did not like Glasgow, it was the easiest city in the world to get away from. (Laughter.)

Mr. W. L. CURRIE (Glasgow) seconded the vote of thanks to the President, and said that Glasgow had established a record meeting, and Dr. Symes had given them a real address. (Applause.)

Dr. JOHN ATTFIELD said that, as the senior Vice-President present, it was his duty to put the motion to the meeting. Alluding to the President's historical review of the Conference, Dr. Attfield said he was proud to recall that for seventeen years—just one-half of the life of the Conference—he was the recipient of the rays of force-power to maintain it in its position, and to be the mirror which should only receive, but emit those rays of force in other directions. (Applause.) Looking over the *Year-book* the other day, he found that out of the ten Presidents who had preceded him, no fewer than eight had now passed away—only Mr. Groves and Mr. Reynolds remaining—but, on the other hand, of twelve who had succeeded him eleven, he was happy to say were still with them, and hearty supporters of the Conference. (Applause.) No one would more heartily rejoice than their President to see there assembled so many men qualified to become the future Presidents of the Conference—to maintain its reputation for many years to come. (Applause.)

plant) Their President had summarised in an admirable way the utterances of the Presidents who had occupied the chair prior to himself. As regards his concluding remarks, although he must not say one word either for or against the position he took up in regard to the British Pharmacopoeia, because of his official position in connection therewith, he would say in regard to every one of the subjects he alluded to they were characterised, in his humble judgment, by sound common sense throughout. ("Hear, hear," and applause.)

A vote of thanks was passed with great cordiality, and the PRESIDENT briefly acknowledged the compliment, thanking the members for the hearty manner in which they had received his address.

#### VISITORS OF DISTINCTION.

The PRESIDENT, again rising, said: We have present with us Professor Remington, of Philadelphia, and Mr. Champion, President of the Pharmaceutical Society of Natal. These gentlemen's names are familiar to us, particularly that of Professor Remington, who is not only the author of an excellent work on pharmacy, but has for many years been professor of pharmacy in Philadelphia College. We

Parrish's book was the one I studied many years ago with a considerable amount of interest; but that work has now been superseded by Remington's own book. I have very great pleasure in supporting this welcome which we accord to Professor Remington on this occasion.

Professor REMINGTON, on rising, was received with hearty cheers. He said: I cannot say how much my heart has been touched by this most hearty welcome. I have had the pleasure of meeting a great many of the members of this Conference individually and personally, but to thus meet you all in assembly has been one of the events I have looked forward to for many years. It was very good of you to say the kind words about me that you did, and I must say here and now that I do not deserve half the good things you have said; and I am sure if my wife was here she would say I do not deserve a tenth. (Laughter.) I notice many married men here, and you know how that is. (Laughter.) Eleven years ago I had the very great pleasure of coming to Great Britain for the first time in my life, and to feel that almost every door was opened to me, to feel hands stretched out on all sides. I had an idea of the hospitality of the old country that I shall never forget. I may say for myself just a word or two personally. I am an American; my ancestors were English on both sides of the house, and I feel that I can speak the English tongue fluently. Of course there are a few matters of detail that I have not acquired yet. You will notice in my speech that I have not acquired the broad "a" and that tone which is supposed to mark the true Englishman. I can say I am an American, therefore you must take me for what I am, and any little errors of speech you will kindly look over and consider my birthplace. I was so glad to hear the Lord Provost say a good word for water. Water, you know, is the backbone of the pharmaceutical profession. (Laughter.) When I came to Glasgow I thought there was nothing but whisky. (Laughter.) To hear that good word for water—well, it went home. (Laughter.) I quite shocked the waiter this morning by calling for water, which I take diluted with ice. (Laughter.) He looked very much surprised, as if that were a thing totally unknown. (Laughter.) I thank you, Mr. President, for your warm words of welcome.

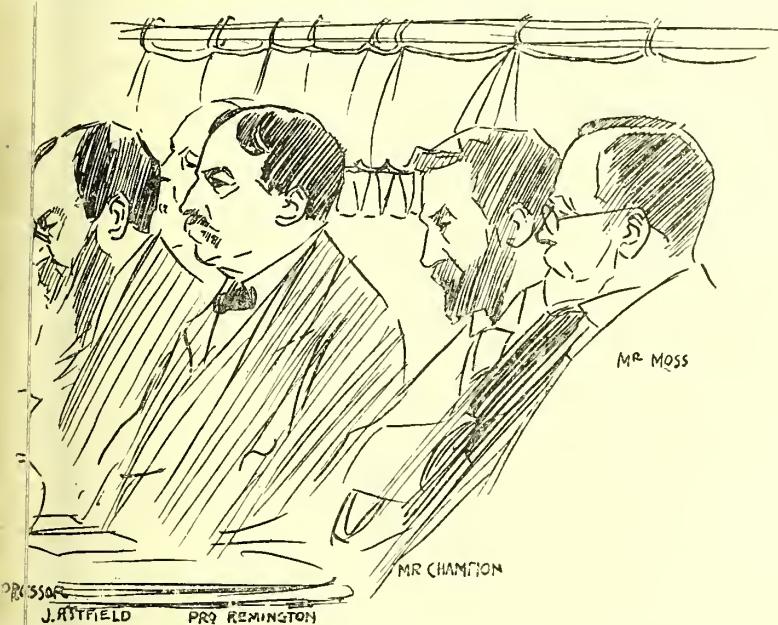
The PRESIDENT then introduced to the Conference Mr. Champion, President of the Pharmaceutical Society of Natal. Mr. Champion, he remarked, had come a long way to attend that meeting. He had come from a country where art and science had not advanced to the extent it has in this country, but he had no doubt that in due course Mr. Champion would have a Pharmaceutical Society of which they should be thoroughly proud. (Applause.)

Mr. WALTER HILLS, President of the Pharmaceutical Society, who was called upon to say a few words about Mr. Champion, had to pause a few seconds before he spoke, so spontaneous and loud was the acclamation which greeted his rising. He then remarked: I only made Mr. Champion's acquaintance a few weeks ago, but I can tell you this about Mr. Champion—that I believe he is the first President of the Natal Board of Pharmacy, and he is specially interested in the examination-work connected with that body. He has attended the examinations in Bloomsbury Square and followed them with great interest. I think he will be the first to admit that they are just merely commencing their work to raise up a number of qualified men to carry on the business of pharmacists in a growing colony.

Mr. CHAMPION said: It is an unexpected pleasure to have this opportunity of addressing you. I am very glad to have this opportunity of thanking those members of the Pharmaceutical Society, and others connected with pharmaceutical work, for the exceedingly kind manner in which they have

seen specially to be indebted to the Philadelphia College of Pharmacy. It is a pioneer, and does its work thoroughly, and has always boasted of excellent men who have distinguished themselves in our profession. It is a very curious thing, too, that in our own school—and I do not want to depreciate our own school to the advantage of others—but in our own School of Pharmacy in Bloomsbury Square, a few years ago, the very art which Mr. Remington presses was not taught. We had chemistry, botany, and materia medica, but pharmacy had no distinct professor in our school, and yet the object of the school is the practice of pharmacy. I am sure that the Conference will be pleased to hear a few words from the two gentlemen I have named, and first I would ask Mr. Martin to speak in reference to his friend Professor Remington.

Mr. N. H. MARTIN said: In every country where pharmacy is known the name of Professor Remington is as a household word. I have had the pleasure and honour of receiving the hospitality of American pharmacists in general, and of Professor Remington in particular. The Philadelphia College is the oldest school of pharmacy, and without exception it has done more to disseminate the love of pharmaceutical science, and has sent out to the world more men imbued with that love, than any other school in existence. The mantle of Procter and of Parrish has fallen on Remington, and Remington has very nobly borne that burden. He is to-day the main support of his school. With regard to his works,



received me and the courtesy which has been shown to me while I was in London, and also for the invitation I received to be present at this Conference. Mr. Champion then explained briefly what had been done by the chemists of Natal in connection with the formation of the Society there. We hope, he said, as time goes on, to raise our standard in Natal, and so high that there will be reciprocity on the part of the British Pharmaceutical Society, so that our certificates will be on a par with theirs. (Hear, hear.) I thank you heartily for the most kind manner you have received me, and the courtesy you have extended to me during my visit to this country.

Mr. W. A. H. NAYLOR, the Senior Secretary, then read the following list of delegates:—

Pharmaceutical Society of Great Britain:—Mr. Walter Hills (President), Mr. G. T. W. Newsholme (Vice-President), Messrs. Allen, Atkins, Bateson, Carteighe, Cross, Grose, Harrison, Johnston, Martindale, Park, Savory, Storrar, Symes, Warren, Young, and Bremeridge (Secretary).

Pharmaceutical Society of Ireland:—Mr. W. F. Wells, jun. (President), Mr. R. J. Downes (Vice-President), Mr. G. D. Beggs (Treasurer), Messrs. Conyngham, Kelly, Murray, Tichborne, and Walsh.

Aberdeen and North of Scotland Society of Chemists and Druggists.—Mr. John Johnston (President), Mr. J. Cruickshank (Hon. Secretary), Messrs. Paterson, Ritchie, and Strachan.

Brighton Association of Pharmacy.—Messrs. Savage and Yates.

Liverpool Chemists' Association.—Messrs. A. C. Abraham, Bain, Conroy, E. Evans, jun., Marsden, Wardleworth, and Cowley.

London Chemists' Assistants' Association.—Messrs. Guyer, Hill, Stephens, and Strother.

Manchester Pharmaceutical Association.—Messrs. Johnston, Pidd, and Wild.

Newcastle-on-Tyne Pharmaceutical Association.—Mr. T. Maltby Clague (President), Mr. G. Foggan (Vice-President), Mr. G. F. Merson (Hon. Secretary), Messrs. Sharp and Whistle.

Nottingham and Notts Chemists' Association.—Messrs. Bolton Gill, and Vallance.

Plymouth, Stonehouse, and District Chemists' Association.—Mr. C. J. Park.

Sheffield Pharmaceutical and Chemical Society.—Mr. A. H. Allen.

Forfarshire District Chemists' Association.—Mr. C. Kerr (President), Mr. James Russell (Hon. Secretary), Messrs. A. B. Anderson, D. Ferrier, Cumming, J. W. Russell, J. Jack, Harley, Ford, Naysmith, Davidson, and Fleming.

Glasgow and West of Scotland Pharmaceutical Association.—Messrs. Adam, Brodie, Currie, Dunlop, Foster, Frazer, Kerr, Laing, Lambie, McAdam, McKellar, McMillan, McMurray, Mitchell, Moir, Robb, G. Robertson, D. T. Robertson, Russell, Sutherland, Taylor, Tocher, and Watson.

Edinburgh Chemists' Assistants' Association.—Messrs. Luman and McLaren.

Swansea and District Chemists' Association.—Messrs. Grose and Hughes.

Oxford Chemists' Association.—Sheriff Claridge Druce and Mr. J. H. Mathew.

Exeter Chemists' Association.—Messrs. J. Hinton Lake and H. Gadd.

Apologies from some of these and others having been intimated, Mr. RANSOM, the Junior Secretary, next read the

#### REPORT OF THE EXECUTIVE COMMITTEE.

The Committee have pleasure in stating that the efforts which have been made to increase the membership of the Conference appear to have resulted in some measure of success, the number of members at the present time being slightly in excess of that of last year. It is hoped that this may be regarded as an indication of increased interest in the Conference, and that the present year may see a further accession to membership.

It was mentioned in the last report that certain alterations were contemplated in the production of the *Year-book*. These have been carried out in the last volume, and a reduction in the cost has been effected, which it is believed has not been attended with any decrease in its general usefulness to members. Mr. Louis Siebold has been reappointed Editor, and the MS. of Parts I. to III. is already in the hands of the printers.

The Blue List has been revised by a sub-committee, and some additions and necessary alterations have been made. Members are again reminded that the funds of the Conference are available for money grants to assist in defraying expenses incurred in pharmaceutical research. No application for such assistance has been received during the past year.

In consequence of his removal to Calcutta Mr. D. Hooper,

F.C.S., resigned his position as Honorary Colonial Secretary the presidency of Madras, and a resolution expressing cordial thanks for his services was passed by your committee. Mr. W. E. S. of Madras, was elected his successor. Your committee ven to claim the assistance of the Honorary Colonial Secretary in their efforts to extend the interest in, and thus increase the membership of the Conference throughout the empire.

By the death of Professor G. F. H. Markoe, of the Massachusetts College of Pharmacy, the Conference has lost a distinguished member. He attended the meeting at Brighton in 1872, and was on that occasion elected an honorary member.

The Conference has suffered an irreparable loss by the death of George Frederick Schacht, of Bristol, to whose initiative the very existence of the Conference may be said to be primarily due, and whose constant and active support has largely contributed to the measure of success it has achieved. He filled with distinction the office of President at Dublin in 1872, and at Sheffield in the following year. Exceptional ability and enthusiasm combined with absolute integrity produced in him the highest type of pharmacist, whilst his genial and kindly disposition commanded the affection and esteem of all with whom he came in contact. Amongst members who have passed away during the year were Mr. H. Mason, of New York, who previously rendered valuable assistance as Honorary Colonial Secretary for Canada; and Mr. F. M. Rimmington, of Bradford, a former Vice-President of the Conference.

The removals by death during the past year have been 26 and by resignation 8, while 107 new members have been elected.

Mr. JOHN MOSS then submitted the following

| FINANCIAL STATEMENT.                              |     |     |      |     |       |
|---------------------------------------------------|-----|-----|------|-----|-------|
|                                                   | DR. |     | £    | £   | £     |
| 1896. July 1.                                     |     |     |      |     |       |
| To ASSETS FORWARD FROM LAST YEAR—                 |     |     |      |     |       |
| Cash in Secretary's hands                         | ... | ... | ...  | 1 1 | 7     |
| ,, at Bank                                        | ... | ... | ...  | 16  | 17    |
| “ SUBSCRIPTIONS—                                  |     |     |      |     |       |
| June 29, 1896                                     | ... | ... | ...  | 3   | 6     |
| July 3.                                           |     |     |      |     |       |
| June 29, 1896                                     | ... | ... | ...  | 0   | 6     |
| Cheques on Union Bank, Regent Street              | ... | ... | ...  | 1   | 9     |
| 1897. June 30.                                    |     |     |      |     |       |
| “ SALES OF “YEAR-BOOK”—                           |     |     |      |     |       |
| By Publishers                                     | ... | ... | ...  | ... | 13 14 |
| “ ADVERTISEMENTS—                                 |     |     |      |     |       |
| 1896 Vol.                                         | ... | ... | ...  | ... | 80 13 |
| “ UNOFFICIAL FORMULARY—                           |     |     |      |     |       |
| Sales by Publishers                               | ... | ... | ...  | 2   | 24    |
| “ INDEX-BOOK—                                     |     |     |      |     |       |
| Sales of                                          | ... | ... | ...  | ... |       |
| “ MEMBERS' SUBSCRIPTIONS—                         |     |     |      |     |       |
| From July 1, 1896, to June 30, 1897 (less         |     |     |      |     |       |
| 17. 16s. not cleared at Bank)                     | ... | ... | ...  | 396 | 33    |
| “ DONATIONS .....                                 | ... | ... | ...  | 32  | 15    |
| “ LIABILITIES ON OUTSTANDING ACCOUNTS—            |     |     |      |     |       |
| Butler & Tanner                                   | ... | ... | ...  | 14  | 15 3  |
| McCorquodale (wrappers)                           | ... | ... | ...  | 5   | 9 3   |
| “ Assistant-Secretary's Salary and Rent, March 25 |     |     |      |     |       |
| to June 30, 1897                                  | ... | ... | ...  | 13  | 15    |
|                                                   |     |     | £581 | 18  | 11    |

|                                                 | CR. |     | £   | £  |
|-------------------------------------------------|-----|-----|-----|----|
| 1897. June 30.                                  |     |     |     |    |
| By EXPENSES OF “YEAR-BOOK”—                     |     |     |     |    |
| Printing, Publishing, Binding                   | ... | ... | 171 | 12 |
| Banding                                         | ... | ... | 3   | 12 |
| Postage and Distributing                        | ... | ... | 14  | 15 |
| Advertising, Publisher's Charges and Commission | ... | ... | 21  | 19 |
| Editor's Salary                                 | ... | ... | 150 | 0  |
| Foreign Journals for Editor                     | ... | ... | 5   | 17 |
| “ UNOFFICIAL FORMULARY—                         |     |     |     |    |
| Advertising and Publisher's Charges             | ... | ... | 0   | 4  |
| “ SUNDRY EXPENSES—                              |     |     |     |    |
| Assistant-Secretary at Liverpool                | ... | ... | 10  | 0  |
| Copies of President's Address                   | ... | ... | 0   | 14 |
| Forret's Paper                                  | ... | ... | 0   | 2  |
| “ ASSISTANT-SECRETARY'S SALARY—                 |     |     |     |    |
| From July 1, 1896, to June 25, 1897             | ... | ... | 45  | 0  |
| Rent of Office from July 1, 1896, to June 25,   | ... | ... |     |    |
| 1897                                            | ... | ... | 10  | 0  |
| “ BLUE LIST—                                    |     |     |     |    |
| Printing                                        | ... | ... | 3   | 7  |
| Postage                                         | ... | ... | 2   | 12 |
| Postages                                        | ... | ... | 10  | 17 |
| Printing and Stationery                         | ... | ... | 6   | 5  |
| Stationery                                      | ... | ... | 2   | 2  |
| Bank Charges                                    | ... | ... | 0   | 0  |

|                                        | £    | s. | d.               |
|----------------------------------------|------|----|------------------|
| By Dr Cash expended                    | 2    | 8  | 5                |
| " Abilities of last year, since paid—  |      |    |                  |
| " Butler & Tanner, Postages, 1895-96   | 23   | 2  | 0                |
| " Butler & Tanner, Outstanding Account | 44   | 3  | 2                |
| " CH IN SECRETARY'S HANDS—             |      |    |                  |
| " Petty Cash...                        | 3    | 11 | 11               |
| " Tamps                                | 0    | 5  | 0                |
| " CH AT BANK                           | 48   | 19 | 5                |
|                                        | £581 | 18 | 10 $\frac{1}{2}$ |

The Well and Hills Fund showed an income from investment of 9/1s. 8d., and expenditure of 8l. 7s. 3d. on the purchase of books for Liverpool.

Mr. Moss, commenting upon the report, said that the Conference had arrived at the foot of the declivity which they had been going down for some years. They were now on the level, and he might say were on the rising ground again. Amongst the things which accounted for this was the popularity of the Conference at Liverpool—(applause)—and he hoped that the Glasgow meeting would have a similar effect, for there they were subject to the energising influence of the breezes which blew down from the Scotch mountains. The present financial statement showed three things prominently. First, that they had not lost ground, but gained it, in having an accession of members, which had an influence upon the revenue. Second, they had received donations from various sources—from gentlemen who thought that the Conference needed money, and who came forward spontaneously with their help. It was not sought for, and he did not think that any ciety would refuse money in the circumstances; but the members should not forget that it was upon their annual subscriptions that the Conference depended. Besides this spontaneous aid, Liverpool had given 20l. to the funds. (Hear, hear.) The third thing which accounted for the improved finances was that they had received 10l. or 12l. more for advertisements for the *Year-book*, and through the boughfulness of the Senior Secretary they had obtained a reduction of the printing-contract, which went for economy, 100/- having been saved on the account. Mr. Moss also referred to the Unofficial Formulary, the small sales of which indicated that it needed revision, but they would not go to it, at any rate until the new *Pharmacopoeia* was published, when they would see what would be needed. (Laughter.)

The correctness of the financial statement was testified to by Mr. Anthony Buck (Liverpool) and Mr. W. L. Currie (Glasgow), the auditors.

The adoption of these reports was moved by Mr. THOMAS TYER, who supported Mr. Moss's recommendation for the preparation of a new general index to the *Year-book*, saying that the Chemical Society and the Society of Chemical Industry were doing the same thing, while the International Congress of Science had recently formulated a scheme for indexing the scientific literature of the world. This matter was of importance, because it was a question of the shortening of labour and the saving of time—an invaluable economy to business men. He urged upon chemists and druggists to support the Conference, because experience showed that the expense of such a work was not increased by the increase of members, while the work could be more thoroughly done if the revenue was increased. Mr. Tyer also expressed his satisfaction with the *Year-book* of 1896, which was not inferior to others before it, although it had been condensed. (Hear, hear.)

Mr. GEORGE WARD (Leeds), in seconding the motion, supported these remarks regarding the general index, as also did the PRESIDENT in putting the motion to the meeting. Dr. Symes added that if there were any accession of members the committee would feel justified in beginning the work, which cost 150l. more than the half-crowns which we got for it.

#### THE UNOFFICIAL FORMULARY.

Mr. Martindale being in Norway, his report on the Formular was read by Mr. NAYLOR, but it contained little of interest, since the committee had done nothing during the past year. Mr. Martindale said that the book might require to be adapted to the new *Pharmacopoeia*, and for that reason

he recommended that his committee should be reappointed, which was at once done, on the motion of the PRESIDENT, although this matter was down for consideration the next day. This brought preliminary business to an end, and it was 12.24 when Dr. ATTFIELD was called upon to read the first paper, on

#### THE ORTHOGRAPHY OF ASAFOETIDA.

By John Attfield, F.R.S.

Dr. Attfield said he had twice within the past fifteen years been called upon to decide as to the orthography of the word "asafoetida." His paper dealt first with the first part of the word, "assa," or "asa," and secondly with the second part, "fetida," or "fetida." With regard to the first difficulty, he quoted from Leseher (1868), who drew attention to Denian's monograph on the subject, in which 600 authors had been consulted, and to Miller (1875), who supported the single "s." "Pharmacographia" adopted the simple "s." In the British *Pharmacopoeia*, 1867, the word appeared as "assafoetida," both in Latin and English, and in the B.P., 1885, as "asafoetida" in both languages. Since the last-named date the single "s" has been generally adopted.

Turning to the latter part of the word, it was stated that in the U.S.P., 1860 and 1870, the word appeared as "assafoetida" in Latin, and "asafoetida" in English; in the 1880 and 1890 editions it appeared as "asafoetida" in Latin, and "asafoetida" in English. The Oxford New English Dictionary gave the word as "asafoetida," but under "Fetid" it gave the Latin adjective "fetidus" (often incorrectly



*fetidus*)." Thereupon Dr. Attfield wrote to the Right Honourable F. Max Müller, and was referred to a little work in which all these "œ" and "e" variants are collected, "and in which," said this distinguished scholar, "you will find all the evidence in favour of *fetida* or *fœtida*. I should spell *fetida*." Dr. Attfield failed to find the little book at the British Museum, but he obtained the following letter from Dr. Murray, the editor of the Dictionary, which seems to settle both the questions at issue:—

"During the middle ages, and down till very lately, much confusion has prevailed in Latin MSS. and texts as to the diphthongs 'æ,' 'œ,' and the vowels 'a' 'e' in many Latin words. Since the application of comparative philology to throw light upon Latin, a good deal has been done to clear up the matter. Thus 'œclum,' 'œena,' which had been so long the accepted forms for 'heaven,' 'supper,' are now settled to be 'œlum,' 'œna.' In the case of the word you are dealing with, although all three spellings 'fetidus,' 'fœtidus,' 'fœtida' occur in MSS. and texts, it seems to be

concluded that 'fetidus' is the more correct spelling, which, of course, gives 'asafetida.' See Lewis and Short, 'Lat. Dict.,' 1880.

"I am sorry that we did not know this when I prepared the 'A' part of our Dictionary, and that consequently we retained the time-honoured spelling 'asafetida.' We have adopted 'fetid' as the form of the English adjective.

"I am also sorry that I do not know what the little book is in which the 'æ' and 'e' words are collected. I have never heard of it, but I must inquire about it and get it. Meanwhile I shall be glad to help you whenever I can. As you probably know, the Americans have begun to substitute 'e' for both 'æ' and 'œ,' even when these are etymologically correct, so that, for instance, all the 'haemato-' and 'haemo-' words are written 'hem-' and all the 'rheas' 'rhea.' I think that this is not British practice. In scientific terms we like to keep the diphthongs when they are etymologically correct, though they generally 'go' in popular words as 'celestial,' 'European,' 'Grecian.'

"But in this case the question is whether Latin had really 'œ,' and the conclusion of scholarship seems to be that it had not, but that the spelling with 'œ' is a mediæval or *renaissance* mistake, probably after some false analogy.

"In Latin, it is now known that 'œ' was a very rare diphthong, only occurring as an archaic spelling of 'u,' retained in some words, as *moenia*. Of course, it was the regular Latinisation of Gr. 'oi,' and hence is common in Graeco-Latin words like diarrhoea, with which pharmacy abounds." (Laughter.)

After this authoritative statement, there can be little doubt that both in Latin and in English the word in question will be spelt "asafetida." In exact quotations from the older authors their spelling of the word in question would probably be retained; but in such cases the context would prevent confusion.

#### DISCUSSION.

12.35. The PRESIDENT remarked that Dr. Attfield had given them a scholarly argument for the new spelling of asafetida, and he hoped that a good discussion would follow.

Mr. JOHN MOSS said that it had crossed his mind, while Dr. Attfield was reading the paper, whether he had gone into the etymology of other words beginning with "asa," so that some light might be thrown upon whether "assa" or "asa," which they had in asafetida, was right. They had, for instance, the words "asarabaca" and "assecrea officinalis." He was also struck with the thought that if Dr. Attfield had gone into such detail as this about every small thing in the Pharmacopœia his labours in the work of revision would never be ended. He should like to hear from Professor Remington his view—or, rather, the American view—of the use of "e" for "æ" and "œ" in such words as these. (Hear, hear.)

Professor REMINGTON said he considered that Professor Attfield had done American pharmacy probably as great service as he had done British pharmacy. On this question of etymology and orthography some correspondence had passed, between Professor Attfield and himself. They would recollect that he had always had a controversy that the Americans were wrong on the subject of the word asafetida and they would recollect that in some of the earlier editions of his "Chemistry" he advocated the use of the word "official." He needed to say a word in this connection. It probably would not be understood by British pharmacists why Americans used the word "official." There were some prejudiced people in America. (Laughter.) They might take that with a grain of salt, but he said there were; and there happened to be quite a number in the pharmaceutical profession. (Laughter.) Well, Procter held that so long as the Pharmacopœia of the United States was not officially prepared they could not use the word official altogether. But when the Pharmacopœia of 1890 was prepared, inasmuch as the Government had now adopted the United States Pharmacopœia as its standard, the pharmacists felt they had a right to use the word "official." He therefore wrote to his friend Attfield as soon as the Convention had decided that the case was won, and now they used the word officially. With regard to the use of the diphthong, he was not there to defend the radical views held on the other side of the world. For himself he

was a conservative. He did not believe in these changes, that they should interfere with the derivation of a word, or interfere with the great English language. They all knew the energy of Dr. Attfield even in a little thing and while this might appear to be a small thing, busy drugmen desired to have as little to do with asafetida as possible yet he could say that little changes like this gave more trouble than many a more important matter. (Hear, hear.)

Mr. CLARIDGE DRUCE said that in respect to the use of the diphthong they had a good case in the word *Carthusia* (he wished it to be understood that he strictly referred to the botanical use of the word). (Laughter.) They never knew when they wished to find out anything about that genus whether to look up "Cæ" or "Cœ," botanical authorities were so much at variance regarding it. Then they had also *Papaver rheas*, where, however, "œ" was correctly used, and recently they had a new *pimpinella* which was called *Anegallis femina*, and he supposed that being female it was correct to use "œ" there. (Renewed laughter.)

Mr. E. M. HOLMES said these words were a great trouble; even the pronunciation was difficult. He had noticed that Professor Attfield said asafetida, but Professor Remington and the President said asafétida. It should be asafétida, he thought. In regard to changing the diphthong, he was of opinion that if they were to carry it out officially they should do so consistently and in a full direction, such as that described by Professor Remington.

Dr. ATTFIELD, in reply, said that all about the "a" words would be found in Flückiger's 1867 paper, to which he had referred. He felt obliged to Professor Remington for his support, which was to be expected, seeing what the practice in America was. He was also obliged to his few personal words. (Applause.) He spoke the truth when he said that gentlemen in such positions as they were in respect to the Pharmacopœia were not so much worried by the big as by the little things. His inclination was to be loyal to their great English philologists, such as Professor Max Müller and Dr. Murray, when he saw that Dr. Murray recanted in regard to asafetida, and said that he would not spell such words with "œ"; they might follow such a distinguished man. (Hear, hear.) That was what he would say in reply to Mr. Holmes' remark regarding the Pharmacopœia being consistent.

The PRESIDENT thanked Dr. Attfield in the name of the Conference for his paper. Although it dealt with a small matter, it was one of importance, when they considered that the word was to be spelled so in the Pharmacopœia.

Dr. ATTFIELD: I did not say, sir, that it would be spelled. (Laughter.)

The PRESIDENT: Well, we are obliged to you, anyway.

12.50. The following papers were then read by the SECRETARY:—

#### FURTHER NOTE ON THE PHARMACY OF CONIUM MACULATUM.

By E. H. Farr, F.C.S., and R. Wright, F.C.S., Pharmacists.

In the discussion upon a note by us on the strength of some of the official succi, read at the last meeting of the Conference, the question of the standardisation of galenic preparations of conium was brought forward, and it was suggested by the President (Mr. Martindale) that our knowledge of the active principles of the drug was not sufficient definite to admit of the standardisation of its preparations.

We reported to the meeting the ascertained willingness of Professor Cash, of Aberdeen, to conduct some experiments on the physiological action of conium, dealing more particularly with the question as to whether the action of a standard solution of conine or of the mixed alkaloids of conium was similar to that of a standardised galenic preparation of the same alkaloidal value. We undertook to have the work carried out, and to submit a report embodying the results of this Conference.

The following preparations and solutions were subsequently prepared by us and forwarded to Dr. Wm. Findlay, who performed the necessary experiments under the direction of Professor Cash:—

1. *Fluid Extract of the Dried Unripe Fruit.*—A pound of the fruits was reduced to coarse powder, and divided into four equal portions. One portion was moistened with

80 per cent. alcohol, and after standing for an hour was passed in a conical percolator. More alcohol was added, and percolation allowed to proceed. A second portion of the fruits was treated like the first, an equal volume of the percolate from No. 1 being substituted for the alcohol in macerating the fruits, and also for the subsequent percolation. The third and fourth portions of the fruits were treated similarly, the percolate from No. 2 being used for the maceration and percolation of No. 3, and that from No. 3 for extraction of No. 4.

Percolation was then carried on continuously until 12 oz. of rectified spirit from No. 4, in three fractions of 4 fluid oz. each, had been collected. The marces were mixed and submitted to pressure. The percolates and expressed liquid were assayed, and gave the following percentages of alkaloidal hydrochlorates:—

|                  |   |                |
|------------------|---|----------------|
| Fraction 1       | = | 3.37 per cent. |
| Fraction 2       | = | .93 per cent.  |
| Fraction 3       | = | .10 per cent.  |
| Expressed liquid | = | .07 per cent.  |

In order to produce a standardised fluid extract for experimental purposes, the first fraction of the percolate was diluted with a sufficient volume of fraction 2 to reduce the alkaloidal strength to 2.5 per cent.

*Solution of Mixed Alkaloids.*—Three and a half ounces of the dried fruits were reduced to a fairly fine powder. This was moistened with 70 per cent. alcohol, and packed in a percolator. More alcohol was then added, and percolation carried on until a pint of percolate had been collected. This was acidified with dilute sulphuric acid, and placed in a retort, and the alcohol recovered by distillation. The acid liquor was allowed to cool, and was then poured into a stoppered separator. The alkaloids were extracted by the process previously employed by us, and were afterwards purified, being finally obtained in solution with slight excess of hydrochloric acid. The solution measured about 100 c.c., and was found to contain 2.22 per cent. alkaloidal hydrochlorates. The alkaloids were again re-estimated, and a solution prepared containing exactly 2.5 per cent. alkaloidal hydrochlorates.

*Succus Conii Fruct.*—A quantity of fresh, unripe fruit, weighing 2 lbs., was well bruised and mixed thoroughly with 10 oz. of rectified spirit, and, after standing for six hours in a covered vessel, pressed. The marc was then moistened with 9 fl. oz. of a mixture of rectified spirit 1 part, water 2 parts, and set aside in a covered vessel for six hours, when it is again pressed, and the liquid added to the first product, then set aside to clarify. The total product measured 32 oz., and on assay yielded 70 per cent. of alkaloidal hydrochlorates.

*Solution of Coniine Hydrochlorate.*—1.96 grammes pure coniine was placed in a stoppered cylinder with 50 c.c. distilled water, a slight excess of hydrochloric acid added, and the volume made up to 100 c.c.

*Solution of Conhydrine Hydrochlorate.*

*Solution of Pseudoconiine Hydrochlorate.*—These solutions were prepared in the same way as No. 4. The coniine was obtained from Messrs. Hopkin & Williams, and the other alkaloids from E. Merck.

#### PRELIMINARY NOTE ON THE ACTION OF CERTAIN PREPARATIONS AND ACTIVE PRINCIPLES OF CONIUM MACULATUM.

By Wm. Findlay, M.A., M.B.

The following preparations were sent for experimental examination by Mr. R. Wright:—Coniine hydrochlorate in solution (2.5 per cent.); a solution of the alkaloids in the proportions in which they occur in the unripe fruit (2.5 per cent.); conhydrine solution (2.5 per cent.); pseudoconiine

solution (2.5 per cent.); fluid extract from unripe fruit containing the various alkaloids to the amount of 2.5 per cent.; and a succus containing 0.7 per cent. of alkaloids. As a result of experiments on animals—guinea-pigs and rabbits—the same general action was observed as belonging to coniine, the mixed alkaloids, and the fluid extract. Conhydrine and pseudoconiine acted in an analogous manner, but comparatively large doses are required to produce any distinct effect. The doses necessary to produce a lethal effect in guinea-pigs are about:—

|                                |     |     |     |     |       |       |                  |
|--------------------------------|-----|-----|-----|-----|-------|-------|------------------|
| Coniine                        | ... | ... | ... | ... | ...   | 0.037 | gramme per kilo. |
| Mixed alkaloids                | ... | ... | ... | ... | ...   | 0.039 | "                |
| Conhydrine, not less than      | ... | ... | ... | ... | 0.257 | "     | "                |
| Pseudoconiine, certainly above | ... | ... | ... | ... | 0.257 | "     | "                |

Fluid extract has not yet yielded results exact enough to allow of tabulation with the alkaloids, but it may be remarked that in experiments on frogs, in which the lethal sign is taken to be stoppage of the circulation, the activity of this preparation is as great as that of coniine. The success, owing to its small percentage of alkaloids, proved rather inconvenient in attempts to compare it with much stronger bodies already noted; the experiments were consequently uncertain, as it was decided not to interfere with the bodies as forwarded.

#### DISCUSSION.

The PRESIDENT remarked upon the careful manner in which the authors had worked out this subject, and the service they had done to pharmacy by it.

Mr. CONYNGHAM (Dublin) said that conium was a most important drug, and it was especially desirable that they should know what were its active principles, because it was used now in the treatment of diphtheria, a disease so fraught with danger that it was important that they should have reliable preparations of the drug or obtain the active principles. He hoped that one result of Messrs. Farr and Wright's investigation would be that they would never have any doubt as to the medicine not acting.

Dr. ATTFIELD could not agree with Mr. Conyngham's suggestion that the alkaloid coniine should be used. The difficulty with many drugs was to isolate the alkaloid that is active—so many principles in these drugs seem to be active. For that same reason, any estimation which depended upon the proportion of mixed alkaloids was a rather broken reed to lean upon for judging the value of such a complex medicine.

Mr. DRUCE asked what part of the drug had been used—whether the juice of the seeds, or the root, or of the leaves; and could they ascertain whether they had as active a drug in the dried plant?

Mr. NAYLOR, replying to this, reminded Mr. Druce that the unripe seeds were what the authors referred to.

Mr. ROBERT BRODIE (Glasgow) recalled a circumstance which happened to him as far back as the sixties, when he had to make some tincture of conium. He was struck with the fact that the seeds which had been sold to his employer, a medical man, as *Conium maculatum*, were spiky. He showed it to his employer, and he did not know anything about it. (Laughter.) Then he took it to the wholesale house from which it had been obtained, and they knew just as little. (Laughter.) He then consulted Mr. Humphrey Henley, at that time a popular lecturer on botany in Glasgow, but he did not know it. However, on reference, he found that it was mixed with the seeds of *Anthriscus vulgaris*. He wondered if there was any such admixture nowadays.

To this Mr. NAYLOR replied that Mr. Farr was an accomplished botanist, and that he had collected the fruit himself, so that he could guarantee its authenticity.

The Conference then adjourned for luncheon.

## SECOND SESSION, TUESDAY.

2.15—3.25 P.M.

On resuming after luncheon, about forty members faced the President, but gradually the number increased to sixty or thereabouts. The first paper taken in the afternoon was

Dr. McWalter's, who had been present during the morning session, when our artist took the opportunity of sketching him in anticipation of his paper; but when the time came

Mr. RANSOM read the paper. Still, we work in the sketch portrait of one of the most intellectual-looking young men who attended this meeting.

#### SOME OBSERVATIONS ON ORGANOTHERAPY.

By J. C. McWalter, L.R.C.S.I., L.A.H.L., Member of the Pharmaceutical Society of Ireland.

The classical experiments of Professor Victor Horsley have awakened a new era of medication, which Dr. Malcolm Morris recently described as one of the most remarkable achievements of the Victorian era. The dominant idea is to supply from the healthy organs of some animal the deficiencies of the patient's secretory glands. This idea cannot claim to be a novel one, it is probably older than Aristotle, and even in their most savage state men seem to have had some intuition of the propriety of appropriating the healthy organs of the lower animals, with a view to becoming imbued with their particular virtues. Thus we are told that certain African tribes fortify themselves for battle by partaking of the orchitic extract of the lion, believing that thereby they become infused with lionine valour.

Dr. Horsley's experiments proved that to graft the gland on the living animal produced the best results, but that to consume them as an ordinary article of diet was also efficacious; whilst even to cook them like ordinary meat did not destroy their virtues.

This evidence that the active principle of the gland, whatever it may be, is not of a protean or evanescent character



has unfortunately stimulated manufacturing chemists to take extraordinary liberties with it, and to indulge in a series of vagaries as to the forms in which it should be dispensed to patients. Thus the glands were dried, powdered, mixed with some foreign substance, and compressed into pellets. They were macerated in varying proportions in glycerine, alcohol, and sundry other solutions, and the most diverse and contradictory reports as to their effects are constantly appearing in the medical papers.

In my humble opinion the compressed-tablet form is about the worst possible one to elicit the virtues of the gland. I believe it to be a blunder to dry it, a worse blunder to powder it, and a grievous error to mix it with any other powder; whilst to compress the product is to still further attenuate the chances of the active principle entering the system. I believe that the various serious symptoms which physicians have found to follow their administration were due to various poisonous toxalbumins generated by the action of moist air on the tablets.

If there be any animal extractive used in medicine of which we have anything like an adequate acquaintance, it is pepsin; and this ferment owes its present pre-eminence to the usefullish labours of pharmaceutical investigators, who have constantly striven to elaborate the active product, and to free it from inert, nauseous and harmful constituents. If, therefore, any manufacturing house were to offer us a tablet, and state that it was equivalent to 5 gr. of a fresh pig's stomach, surely we would laugh it to scorn. Yet have we not firms, boasting to represent the newest and most elegant pharmacy, claiming no more for their tablets than that they represent an equivalent of another gland. I fear, gentlemen of the British

Pharmaceutical Conference, that the responsibility for this state of things is in some measure due to the fact that you have allowed your proper function as pharmacists—to be abstract, elaborate, and make elegant and effect the various remedies which the medical profession may wish to investigate—to be usurped by some large commercial firms. These houses seem to have monopolised for the moment the profession, whilst they hypnotise chemists by their stories of research laboratories, scientific staffs, unrivalled facilities, &c., and paralyse pharmaceutical criticism by the prices they pay to the press.

It may fairly be asked whether I have any better method to suggest for the exhibition of animal extracts than the compressed concoctions which I have just condemned. Without claiming to throw much light on the subject, I would premise that in administering glandular remedies we seek to copy a physiological process, and, therefore, we should be guided by what takes place normally in the organism. Now, the process of secretion in any gland may very roughly be considered as an osmosis—it is, certain constituents of the blood are elaborated and allowed to filter through by means of a differentiated epithelium and a basement membrane.

Copying this process, then, I suggest that the proper plan to extract the active principles of animal organs is to remove them immediately on the death of the animal, so that the molecular life of the organ may, if possible, be preserved, and at once macerate them in a sterilised solution of glycerine, made alkaline or acid, according to the nature of the gland. Thus for the pancreas one would use an alkaline solution, and for the stomach a slightly acid one.

The resulting solution should afterwards, I submit, be subjected to a process of dialysation. Dialysis, as a method of extracting the active principles of drugs, is one I believe to be of great value, and its employment in the preparation of animal extracts will be found very useful in separating the colloid constituents, and obtaining a closer approximation to the active principle.

Since the demise of Dr. Brown-Séquard, and the production of the tablet-form, the orchitic extract has fallen into disrepute, but it will probably be found of great use, especially in cerebral cases, when a really active extract shall be produced. The method which I advocate for the preparation of this is to macerate fresh sliced glands in a solution containing 30 per cent. of glycerine, and 0.5 per cent. each of chloride of sodium, phosphate of sodium and bicarbonate of sodium. The same solution will probably be found the best solvent for the ovarian extract, though the virtues of this are much more dubious.

Extract of red bone-marrow is best made, I think, by macerating the fresh marrow in glycerine. The effects of this preparation, when well made, are little short of marvellous, and it is well worth the investigations of physicians and pharmacists.

The experiments of Claude Bernard have proved that *in mortem* changes in animal organs go on with such rapidity that for a very long period an unchanged organ seems never to have been investigated; hence the importance of asepsis in the preparation of the remedies, and the necessity of preserving them from such changes by their immediate immersion in some such preservative fluid as glycerine.

Gathered here to-day are the *élite* of pharmacy in Great Britain and Ireland, who prove by their presence their desire to lift themselves above the level of mere money-grubbers, and to do some real service to suffering humanity. Please, I shall be if any feeble words of mine can induce them to investigate the properties and preparation of animal extracts, and to rescue them from those traders whose chief desire seems to be to reduce every organ and tissue of the body to their own special pill, pellicle, pellet, or potion, no matter how obviously unsuited such may be to present in its full potency the remedy sought after.

#### DISCUSSION.

The PRESIDENT said this was an interesting paper, one which the members of the Conference could fully appreciate. He wished that there would be a really good discussion upon it.

Mr. N. H. MARTIN, who had come into the room while the last sentences of the paper were being read, said he

disappointed not to have heard the paper, as he expected to read it been taken in its order. As to glycerine extract his experience was that they were extremely successful, and that that was a proper method of exhibiting such remedies. He quite believed that a great many of these organic substances that were now in use were tentative, and that their use was largely due to the way in which they are advertised; but he was quite of the opinion that organotherapy had come to stay. He had seen many cases in which certain specific glands had been found of great service—as, for instance, the thymus and the thyroid. He was also of the opinion that a red-bone medulla was a remedy of value, and when it was carefully dried under proper aseptic conditions, was better administered in that way than in any other.

Mr. BIRD regretted that Dr. McWalter had not submitted experimental facts in proof of the statements which he had made regarding the use of the dried bodies, because it was a matter of common knowledge that the remedies given in the particular forms which he condemned had been of decided service. He was not prepared to accept the statements made by Dr. McWalter. (Hear, hear.)

Mr. PETER MACEWAN pointed out that these statements by Mr. Martin and Mr. Bird were entirely at variance with what Dr. McWalter had brought before the meeting. He seemed to have overlooked the fact that the recommendation to dry the thyroid under proper aseptic conditions came, he believed, from one of their most eminent therapeutists, Professor T. R. Fraser, Edinburgh, and since that suggestion had been taken up by several firms it had been fully tried in medical practice—by, amongst others, Dr. Murray, of Newcastle—and the general opinion was that in this particular form the thyroid, at all events, was decidedly active. That method of administration had been found to be better on the whole than the one which was first introduced by Dr. Murray—viz., subcutaneous injection of the glycerine solution. He did not think the administration of dried thyroid had prevented investigation regarding the active constituents of the gland, and they knew already that at least two active principles had been isolated from it which were more or less associated, for both substances seemed to be iodine derivatives of some albuminoid body. Still the general opinion was that they were not quite the same in action as the whole thyroid. From the statements made by Mr. Martin and Mr. Bird, he did not think that Dr. McWalter's assertions were altogether justified, and it was to be regretted that he was not present to bring forward some facts in support of the very strong statements he had made.

Mr. STANFORD said that at least two principles had been isolated from the thyroid which contained iodine. He could say that the dried preparation was active, but they must not forget that the dried substance would contain any accidental principle which might happen to be in the fresh body, and they had yet to get some chemical representing the active principle of the gland.

Dr. ATFIELD: Can Mr. Stanford give us any hope that such an active principle will be produced?

Mr. STANFORD: Not yet.

Mr. LEO ATKINSON here called attention to the fact that the thyroid glands varied much.

Mr. STANFORD (continuing) said the weight of the thyroid differed enormously—often being double in one season of the year than it was in another. Referring to the presence of the iodine-albuminoid body, he said this was the first time that iodine had been found in an animal substance, and called the fact that he had told the Conference years ago that he had found iodine in nearly every marine plant which he could get at. He did not then think of looking for it in the sheep, and even now did not know where it came from. (Laughter.)

The PRESIDENT, winding up the discussion, hoped that Dr. McWalter would bring forward evidence in support of his statements. It seemed to him that iodine which had been found in the thyroid gland had some effect in the disease for which it was used, and the question was, Could they get some other form of iodine—in marine plants, for example—which would replace it?

A vote of thanks having been accorded to Mr. McWalter, Mr. J. C. UMNEY was called upon to read the next paper.

#### FURTHER OBSERVATIONS ON COMMERCIAL OIL OF CITRONELLA.

By John C. Umney, F.C.S., and R. S. Swinton.

In their report for October, 1895, page 18, Messrs. Schimmel & Co. called attention to the adulteration of three samples of citronella oil with substances that did not affect their solubility in three to five volumes of 80 per cent. alcohol, but caused them to turn cloudy on the addition of further alcohol, and caused a precipitate of a foreign substance at the bottom of their flask.

This deposit, they stated, did not consist of petroleum, but probably of East Indian gurgun balsam, or wood-oil, the exact identification being prevented by the smallness of the samples.

Subsequently one of us described (THE CHEMIST AND DRUGGIST, March 7, 1896) several samples having similar characters met with on the London market, at the same time pointing out that the adulterant, if a wood-oil, was not the ordinary gurgun oil, for neither did the oil itself, nor did any part of it, give Flückiger's reaction for that substance. Since that time doubts have been raised as to the sophistication of these oils, as the nature of the adulterant, if any, could not be determined.

The characters of these, as well as of several more of the same class of oils, which we have termed A, subsequently examined were:—A specific gravity as high as .910 at 15° C., and an optical rotation as high as —14 in a tube of 100mm. and slight deposition on treatment with five volumes of 80 per cent. alcohol.

This specific gravity is certainly higher than those obtained in 1891 (*Ph. J.* [3], vol. xxi., page 322) from a comparison of many samples which represented practically the whole of the oil of citronella at that time met with in commerce in London, no oil amongst those then examined having a specific gravity exceeding .897. All of these oils differed markedly from the oils distilled by two English firms, Messrs. Fisher and Messrs. Winter & Son, in Singapore and Galle (Ceylon) respectively.

These oils, which we have termed Class B, have the following characters:—

Specific gravity at 15° C., .886 to .889.

Optical rotation in a tube of 100mm., —4 to —6.

Readily soluble in 80 per cent. alcohol.

It seemed therefore desirable to thoroughly investigate the differences existing between these two classes of oil, and to determine whether they were due to sophistication of those first referred to (Class A), or to a difference in the method of distillation of the latter (Class B), by which certain of the constituents of the oils were eliminated.

We have addressed letters to the two firms mentioned on the subject of the method of distillation adopted, but, although several months have elapsed, up to the present time have not received replies. We learn, however, from two independent sources that the oil is not in the ordinary way distilled by steam, and that practically no differences exist in the grasses used for distillation. It is distilled in all cases from freshly-cut grass, or grass cut within three days, as it is found that if the grass be left for more than the fourth day the yield of oil is not great enough to cover the distillation-expenses.

The most important constituents which have hitherto been recognised as present in pure oil of citronella are camphene, dipentene, citronellic aldehyde, methyl heptenone, geraniol, acetate of geraniol and borneol, all the physical and chemical characters of which have been worked out with almost complete exactitude. A difference in the relative proportion of these constituents, the characters of which vary very much, would account to some extent for difference in the oils, but the only body that would materially raise the specific gravity would be a considerable quantity of acetate of geraniol, specific gravity .917.

Saponification showed that the proportion of esters did not exceed 5 per cent. in either the oils in Class A or Class B, and therefore the specific gravity of over .900 could not be due to geraniol acetate, as the other bodies present in large proportion have specific gravity lower than .885.

A considerable quantity of an oil of Class A was therefore submitted to fractional distillation in a current of steam,

fractions being collected corresponding to the following proportions:—

|                |               |                |               |
|----------------|---------------|----------------|---------------|
| First fraction | 7.9 per cent. | Sixth fraction | 4.9 per cent. |
| Second "       | 15.2 "        | Seventh "      | 4.3 "         |
| Third "        | 7.4 "         | Eighth "       | 5.7 "         |
| Fourth "       | 4.4 "         | Ninth "        | 6.0 "         |
| Fifth "        | 7.2 "         | Residue        | ... 37.0 "    |

The fact that this residue could only be distilled with the very greatest difficulty with steam suggested the probability that if the oils of Class B were steam-distilled, this fraction would not in all probability be present in the oil.

Submitted to fractionation with steam under precisely similar conditions, practically the whole of the oils of Class B were readily distilled, thus making it evident that herein lay the very considerable difference between the oils of the two classes.

The residue of the oil of Class A, amounting to 37 per cent. of the whole oil, was submitted to extended examination. It was distilled, refractionated under a reduced pressure of about 60 to 70 mm., and was then found to distill at ordinary pressure between 245° and 280° C. It still contained, however, traces of geraniol as indicated both by the odour and by acetylation, and was therefore purified by repeated fractionation and distillation over sodium, until the metal remained practically bright throughout the whole process.

This body, which has all the character of a sesquiterpene, does not agree either in physical characters or in chemical reactions, with any of the hitherto described bodies of that class, of which the most important are cadinene, caryophyllene, clovane (see *Ph. J.*, vol. xxiii., page 382), and the recently described humulene (Chapman, *Jour. Chem. Soc.*, 1895, page 54). We are studying these characters and chemical combinations, but it is only necessary in this connection to point out that it is odourless, and consequently a valueless constituent of the oil.

It is, moreover, not nearly so soluble in alcohol of 80-per-cent. strength as geraniol and citronellic aldehyde, and therefore materially affects the solubility of the oil. It is also quite devoid of optical rotation, and has a high specific gravity.

In a previous paper (THE CHEMIST AND DRUGGIST, March 7, 1896) we have referred to the percentage of acetylisable bodies indicated by saponification, which fell as low as 50 to 52 per cent., calculated in terms of geraniol in some of the oils of Class A. We have at the same time found that the percentage of acetylisable bodies in all the samples of the oils of Class B are as high as 90 to 92 per cent. We are now able to attribute this difference to the presence of quantities of this sesquiterpene in the oils of Class A to the extent of from 20 to 30 per cent., and it is quite evident that the percentage of acetylisable bodies is much reduced by the presence of this body.

It should be borne in mind that the acetylisable bodies present include borneol, and also are influenced by the proportion of citronellic aldehyde present.

The difference in the rotatory power of the two oils being unexplained by the presence of the sesquiterpene, owing to its optical inactivity, the first fractions of the oils were carefully examined with a view to determining the proportions of terpenes present and their nature.

The first 6 per cent. of each of the oils was carefully collected after repeated fractionation, and in the case of A it boiled below a temperature of 170° C., and had an optical rotation of -42 in a tube of 100 mm., and after distillation over sodium the optical rotation was found to be as high as -52°.

The specific gravity of this fraction was .859 at 15° C.

These characters do not correspond with camphene, the optical active terpene hitherto recognised as present in citronella oil; and as the absence of borneol was proved by the boiling-point of the fraction and freezing, it points to the presence of a strongly laevorotatory terpene other than camphene.

The absence of anything more than traces of camphene and borneol in this fraction was confirmed by acetylation, camphene being converted by this treatment into iso-bornyl acetate and borneol into the corresponding ester; saponifica-

tion showing that only traces of these acetyl absorption bodies were present.

In contradistinction to this, the corresponding fraction from Class B oil had an optical rotation of only -11 in a tube of 100 mm., and after acetylation and saponification over 90 per cent. acetyl absorption bodies was indicated, showing that the highly optically active terpene of Class A oil is nearly, if not altogether, absent from those of Class B. The range of boiling-point was considerably higher, being up to 190° C., and there can be no doubt that this terpene is the cause of the higher optical activity of the former class of oils, and that it has either been fractionally removed or the oils of Class B or does not exist.

These results, we think, point to the conclusion that (1) the native distilled commercial oils (Class A) differ from those distilled by English firms (Class B) in containing a highly optically active terpene, which raises the optical rotation, and a large percentage of sesquiterpene which raises the specific gravity, the presence of which constituents reduces the odour value and impairs the solubility in alcohol. (2) That the oils of Messrs. Fisher and Walker respectively are possessed of approximately 30 per cent. greater odour value than most native distilled commercial oils.

As we have already stated, we are thoroughly investigating the characters of the sesquiterpene which we have separated.

Mr. Umney exhibited specimens of the various products which he had obtained in the distillation of the oils.

#### DISCUSSION.

The PRESIDENT said it was a valuable paper, and one on a subject on which the author was one of the authorities in this country.

Dr. ATTFIELD said he could not see how there could be much discussion on the subject, for that very reason; but the isolation of a sesquiterpene with a high boiling-point, and without an odour, was an extremely important fact, which pharmacists, as well as medical men and scientific chemists, would be interested in.

The PRESIDENT asked Mr. Umney if he had ascertained whether the different oils had been distilled by passing steam through the plant, or by the old method of boiling with water. He mentioned that because the steam method carried over the high-boiling bodies.

Mr. UMNEY, replying, said that he had written to the Singapore and Ceylon firms who distilled the oil referred to, but, perhaps in their own interests, they had neglected to reply. He could say that the native distilled oil was the pure oil, and not adulterated. The President's remarks in regard to steam-distillation were pertinent, and he had recently been able to determine that lavender oil when distilled by steam had a much finer odour than the oil distilled in the old Mitcham way of fire-heating; and in that connection he mentioned that Sir Walter Gilbey has at his estate of Elsenham been growing lavender and mint, and experiments had been made by the steam-distillation method with excellent results, and Sir Walter hoped, through his experimental cultivation, to do something for the relief of agricultural distress in Essex.

Mr. Umney's paper and the discussion upon it occupied nine minutes, so that at 2.38 the following paper was read by the author:—

#### THE PHARMACEUTICAL VALUE OF SUMATRA BENZOIN.

By Thomas Dunlop, Ph.C., Glasgow.

The author of this paper in making up benzoin, still found 22 per cent. of insoluble residue, which fact was the starting-point of his inquiry into the quality of the commercial supply. He premised a statement of his results with some extracts from *materia medica* books in regard to the resin. In one case only—Christison—is the percentage of impurity stated, and in one case only—the B.P.—is the presence of impurity unnoticed.

Christison describes benzoin as of "two sorts, commonly called first and second, or fine and coarse. Each dissolves entirely in alcohol, rectified spirit, and ether"—the "coarse" sort only differing from the "fine," apparently, in containing "16 per cent. of extract and impurities," the compositions being given as—

| Fine     |     |       | Coarse |                        |  |
|----------|-----|-------|--------|------------------------|--|
| Resin    | ... | 80.7  | 78.5   | Resin                  |  |
| Benzoin  | ... | 19.8  | 19.7   | Benzoinic acid         |  |
| Moisture | ... | 2     | 1.6    | Extract and impurities |  |
| Total    | ... | 100.7 | 99.8   |                        |  |

Quotations were also given from "Pharmacographia," "United States Dispensatory," Maisch's "Materia Medica," and the British Pharmacopoeia, all being somewhat vague as to the quality of the resin, and the B.P. not indicating the source of it, although the solubility-test seems to require absolute resin, such as Siam, while a passage of description indicates the Sumatra sort. Atfield (6th edit., 1875) shows that the drug may contain 1 per cent of impurity, his figures being—

Benzoinic acid ... from 12 to 15 per cent.  
Resins ... " 78 " 84 "  
Total ... " 90 " 99 "

In the 15th edit. (1893) he merely mentions benzoin as a source of benzoic acid (which is again given as 12 to 15 per cent.) with the additional statement—"the rest being mainly composed of two resins."

For the sake of brevity and lucidness (the author concedes) I have tabulated my investigation, and before you see the samples examined, and also the residue left by each. In Tab. I. details are given of the samples examined, with results.

In Tab. II. the samples are arranged in numerical order of the residues.

In Tab. III. the samples are arranged in price order, with corresponding residue value.

The conclusions to be drawn from these are—

(a) That Sumatra benzoin contains from 8 to 30 per cent. of barky and woody matter (*vide* Table II.);  
(b) That the price paid for the drug is no criterion of the quality (*vide* Table III.);  
(c) That if this variety be used pharmaceutically it should be previously estimated so that the proper allowance may be made for impurities; and

(d) That in the forthcoming B.P. more accurate statements should be made regarding the actual "characters" and "solubility" of this drug.

For comparison I procured one sample of Siam benzoin which I find to be "practically entirely soluble" in rectified spirit, the residue only amounting to 5 gr. per oz. I would also direct attention to the fact that, although the low price and greater solubility of No. 9 may seem in its favour, it proved to be Palembang resin, so that it is unsuitable for making even an unofficial tincture. A noticeable feature of the tincture made from it was that it took ten hours to filter 3 oz.

The following considerations prompted me to take up the subject:—

1. I could find no authoritative information on it. I have dealt with this in the introduction.

2. I could find no literature on it. I have only come across two references—both foreign. The one in the *American Journal of Pharmacy*, 4th series, i. 485, where A. C. Curtis in "Notes on Benzoin," says:—"6th. A known quantity of seven of the samples was treated with alcohol. The undissolved residue, dried and weighed, gave an average of 21 per cent. of insoluble matter." The other in the *C. & D. of May 1, 1886*, in a letter from Pocock & Co., Capetown, giving the comparative assay of a salvage find of resin, 195 years old, with that of elect benzoin at that time. It says:—"Having thoroughly exhausted the resin with S.V.R., we found it left 77 per cent. of wood, &c., whereas a sample of elect benzoin, as found in commerce at the present day, similarly treated, yielded no less than 34.9 per cent. of woody matter."

3. The fact that Sumatra benzoin is always supplied when benzoin is ordered. This only requires to be mentioned.

4. The therapeutic importance of the drug. Although

Christison says "it appears to be nearly devoid of medicinal properties, and is but little used," in modern practice is esteemed as an inhalation in the treatment of congestion of the pharynx and larynx, and is recognised as one of the best remedies for nasal catarrh, hence the necessity for having a full strength tr. benzoin, co. Were it "nearly devoid of medicinal properties," the question might well be asked—"Why is it retained in the Pharmacopoeias, seeing it is not the recognised source (on the large scale) of benzoic acid, which is its principal constituent?"

TABLE I.  
Details, with Results

| No. of Sample | Price | Labeled | Residue in gr. from 1 oz. of drug | Percentage of impurity | Gr. reqd. for 1 oz. Soluble Matter | Remarks                                 |
|---------------|-------|---------|-----------------------------------|------------------------|------------------------------------|-----------------------------------------|
| 1             | 2.8   | *       | 97                                | 22.17                  | 562                                | Second quality                          |
| 2             | 2.6   | —       | 132                               | 30                     | 626                                | Only quality, described as "white fine" |
| 3             | 3.8   | Opt.    | 35                                | 8                      | 475                                | Highest price                           |
| 4             | 3.6   | Elect.  | 100                               | 22.35                  | 567                                | Described as "elect."                   |
| 5             | 2.6   | Opt.    | 120                               | 27.42                  | 602                                | Second price                            |
| 6             | 3.6   | —       | 48                                | 10.9                   | 491                                | Highest price                           |
| 7             | 2.6   | —       | 100                               | 22.85                  | 567                                | Only quality                            |
| 8             | 2.3   | Opt.    | 126                               | 28.8                   | 614                                | Best quality                            |
| 9             | 1.5   | —       | 56                                | 12.8                   | 501                                | Second quality                          |
| 10            | 4.    | Opt.    | 76                                | 17.37                  | 529                                | Highest price                           |
| 11            | 3.4   | Opt.    | 70                                | 16                     | 520                                | Highest price                           |
| 12            | 3.6   | Opt.    | 64                                | 14.62                  | 512                                | Highest price                           |
| 13            | 6.-   | Siam    | 5                                 | —                      | —                                  | —                                       |

\* Those with a blank were labelled "Gum benzoin" only.

TABLE II.  
Numerical Order of Residues

| No. of Sample | Residue | Percentage | Price |
|---------------|---------|------------|-------|
| 13            | 5 gr.   | —          | 6-    |
| 3             | 35 gr.  | 8          | 3.8   |
| 6             | 48 gr.  | 10.9       | 3.6   |
| 9             | 56 gr.  | 12.8       | 1/5   |
| 12            | 64 gr.  | 14.62      | 3.6   |
| 11            | 70 gr.  | 16         | 7.4   |
| 10            | 76 gr.  | 17.37      | 4.-   |
| 1             | 97 gr.  | 22.17      | —     |
| 7             | 100 gr. | 22.85      | { 2.6 |
| 4             | 100 gr. | 27.42      | { 2.6 |
| 5             | 120 gr. | —          | 2.6   |
| 8             | 126 gr. | 28.8       | 2.3   |
| 2             | 132 gr. | 30         | 2.6   |

TABLE III.  
Price Order, with Residue Value

| No. of Sample | Price       | Residue |
|---------------|-------------|---------|
| 9             | 1.5 per lb. | 56 gr.  |
| 8             | 2.3 per lb. | 126 gr. |
| 7             | 2.6 per lb. | 100 gr. |
| 5             | 2.6 per lb. | 120 gr. |
| 2             | 2.8 per lb. | 132 gr. |
| 1             | 3/4 per lb. | 57 gr.  |
| 11            | 3/4 per lb. | 70 gr.  |
| 6             | 3/4 per lb. | 48 gr.  |
| 12            | 3/6 per lb. | 64 gr.  |
| 4             | 3.8 per lb. | 100 gr. |
| 3             | 3.8 per lb. | 35 gr.  |
| 10            | 4. per lb.  | 76 gr.  |
| 13            | 6.- per lb. | 5 gr.   |

Mr. Dunlop exhibited specimens of the benzoin upon

which he had experimented, and samples of the insoluble material obtained from them. He also made his results intelligible to the meeting by exhibiting them on printed sheets. He added that he has since ascertained that No. 1 was Siam benzoin, which makes the case for Sumatra worse.

#### DISCUSSION.

The PRESIDENT said this was essentially pharmaceutical work, and reflected great credit on the gentleman who had carried it out. It was work of importance, because the supply of drugs depended very largely upon the demand for them, and if anything were done to improve the supply it was such work as Mr. Dunlop's demanding a better quality.

Mr. J. C. UMNEY said the question of price brought forward by Mr. Dunlop accentuated the trouble which wholesale houses had in the garbling and picking of drugs, which processes added greatly to the first cost, and his quotation from a trade report strengthened that view. Sumatra benzoin, he said, was always supplied when benzoin was asked for, and not Siam, but that was because the Sumatra variety answered the description of the British Pharmacopœia. The Siam resin was always quoted in price-lists, and could be obtained if it were wanted. It was undoubtedly finer in aroma, and was largely used for making benzoated lard because of its pleasant odour. As to what Mr. Dunlop had said regarding the larger proportion of benzoic acid being the artificial, his experience was decidedly against that view, and he would ask Mr. Tyrer (who sat beside him) if that was not so.

Mr. TYRER said Mr. Dunlop's sentence regarding benzoic acid was distinctly misleading as to the facts. He ventured to say emphatically that benzoin was the source of the larger supply of the acid used in medicine. Toluol benzoic acid was largely produced and used in making artificial dyes, but he knew of no case in which adulteration or substitution of the natural acid with the artificial could not be easily detected, and he knew of no case in which it had been attempted. This he said to his certain knowledge. (Hear, hear.)

Mr. MACEWAN thought the paper was of very great importance, especially to retail traders. No doubt most wholesale men were aware that such a condition of things existed. During the past six or seven years a good deal of work had been done commercially and chemically in respect of the benzoin. In the first place, regarding the Sumatra benzoin, it was perfectly well known that the Chinese merchants, in whose hands this trade was, systematically manufactured it. They got it from native collectors and mixed it with other resins, woody matter, and so on, and prepared benzoin very largely to suit the price obtainable for it in London. Anyone who walked through the drug-warehouses there could not help noticing the extreme variability of the drug—it was a mixture. That led to the obvious conclusion that solubility *per se* was not altogether a reliable test, because all that was dissolved was not benzoin. One might dissolve some of these worthless resins added to it. That was why the contributions with regard to benzoin from Lüdy, Tschirch, and Dieterich came in. Dieterich, following Lüdy's investigations, had systematically determined the saponification number, ester number, and acid value of benzoin, as well as the solubility, and his experiments on the last point confirmed Mr. Dunlop that the best benzoin should not contain more than 10 per cent. of insoluble matter. Lüdy's experiments showed that Sumatra benzoin contained ten bodies—viz., free benzoic acid, free cinnamic acid, styrol, vanillin, benzaldehyde, benzol, styracin, cinnamic-phenyl-propyl ester, benzo-resinol benzoin ester, and benzo-resinotannol benzoin ester—the last two bodies constituting the chief part of the resinous matter. The same chemist found six constituents in Siam benzoin—viz., benzoic acid, vanillin, styracin, benzoic ester, benzo-resinol benzoin ester, and siaresinotannol benzoin ester, the last two being the "resin." Lüdy added that Siam benzoin contained 38.2 per cent. of benzoic acid, free and combined—a much larger proportion than was generally allowed. As the benzoin differed in composition, so they might differ in action. From that statement would be seen the real importance of the paper, because that was the first time for many years that any British chemist had approached the matter in this way, and it was really time that they had it

decided what benzoin was to be used in medicine. No pharmacist who had a true appreciation of his work could take advantage of the slight ambiguity in the Pharmacopœia—which did not definitely prescribe Sumatra the wording showing that they might use the Siam. That was a soluble resin, had a fine aroma, and was in every way better.

Mr. SEYLER was interested in this subject because he had lately examined a number of samples of compound tinctures of benzoin, and had been in a difficulty as to the standard he was to judge them by. He did not know what kind of benzoin to use as a standard, but at last obtained a specimen, said to be the Siam gum, which yielded something like 70½ per cent. of insoluble matter. This observation had been corroborated by Dr. Hill, of London, but it did not agree with other observations which had been published, a lower percentage of insoluble matter being mentioned. We understand that Mr. Seyler referred to the percentage of insoluble matter in making the compound tincture. He had determined ester and saponification numbers suggested by Dieterich, and added to them the iodine number; but he was not convinced that he could determine the quality of samples by these tests. He thought it was desirable that they should judge benzoin by separation of the acid and some determination of the quality of the resin in it. It was a very difficult subject, he admitted. In, he asked, what are the properties of benzoin due to Was it the acid? If so, a determination of the acid value would be an important factor.

Mr. E. M. HOLMES said it was important to call the attention of chemists to Pharmacopœia ambiguities in the way that Mr. Dunlop had done. He was of opinion that in medicine only the best quality of drugs should be used. Siam gum occurred in tears, and was a fine drug, preferable to the Sumatra variety. They had not yet ascertained how far the properties of benzoin were due to benzoic acid or other constituents. Regarding the benzoic-acid matter, he asked if there was not in commerce a large quantity of artificial benzoin?

Mr. DRUCE said they wanted benzoin for two purposes—viz., for medicinal use and for making incense. The latter purpose did not much affect them on that side of the border. (Laughter.) He found that Siam benzoin was better for perfume, but for inhalation-purposes he preferred the Sumatra variety. It was desirable that they should go warily in effecting any change, because, as Mr. MacEwan had pointed out, the two resins differed in their chemical constituents, and it might be inferred that they differed also in action. He then mentioned that at one time, about twenty years ago, he was looking over the stock in an old pharmacy, and found a large quantity of gum acroïdes in the benzoin, although it yielded cinnamic and benzoic acids. It was a resin obtained from *Stanthorhiza hastilis*, and he wondered what it was used for.

Mr. MACEWAN said he had ascertained about sixteen years ago that large quantities of gum acroïdes were used in making sealing-wax, but that was a trade secret. (Laughter.)

Mr. ATTFIELD said the paper was important, and the discussion was of great importance. Mr. Dunlop asked the question, "Why was benzoin in the Pharmacopœia?" It was there, first, because it was the source of benzoin acid, although it was equally well known that that acid was also obtained artificially, and mixtures of the two might be found in commerce; secondly, it was in the Pharmacopœia because it was the source of antiseptic resins, for he took it that the activity of benzoin was not wholly due to benzoic acid. As to the medicinal value, he did not believe that the object was one which should be discussed in an assembly of pharmacists. They should leave such questions to medical men. With regard to putting more specific characters in the Pharmacopœia, they had, both on this and the other side of the Atlantic, for many years been educating pharmacists, and one result of that education was that they required to put less detail in the Pharmacopœia, and the less, he thought, the better. As to specifying the amount of insoluble matter, he did not think it desirable for any Pharmacopœia to say what amount of bark, &c., should be in the resin. In order to say that it was soluble in alcohol. It was to such persons as Mr. Dunlop's, and not to Pharmacopœias, that they should look for such information.

Mr. ENRY COLLIER said that in the hospital (Guy's) with which he was connected benzoin was largely used as a surgical application, and they used several gallons of the compound tincture every year for that purpose. That was a good reason why it should be in the Pharmacopoeia.

Mr. DUNLOP, in replying, said that the paper did not go into the ultimate analysis of benzoin, therefore he did not discuss the chemistry of it. As to the acid he had seen a statement in Fownes' "Chemistry" to give in his paper, and a comparison of the relation between the price of the resin and the price of the acid had convinced him that it could not be the natural acid together. He had calculated on the basis of the yield of acid from benzoin being from 12 to 15 per cent. Then in respect to his observations as to the Pharmacopoeia being

more definite regarding character, he was supported in that by the remarks of Mr. Holmes; and Mr. Martindale had, in a paper some time ago, said much the same thing. As the B.P. referred to the resin being in tears and agglutinated matters, he thought that some alteration in statement was required; and if, as Dr. Attfield said, a Pharmacopoeia should not go into details, he should ask why they should go into such details as that *styrax* had a vanilla odour.

The PRESIDENT, in thanking Mr. Dunlop, said it was a valuable paper, and good would undoubtedly come out of the discussion. He observed, further, that although certain commercial samples of benzoin might be useless for pharmaceutical purposes they would be valuable for others.

The Conference then adjourned for the day.

## THIRD SESSION, WEDNESDAY.

10 A.M. TO 1 P.M.

THE programme which met the members this morning was as follows:—

### PAPERS.

1. "Note on some Soluble Compounds of Arsenic," by Professor Jenders, M.A., D.Sc.
2. "Pharmaceutical Ethics—a Retrospect," by Leo Atkinson.
3. "Iston's Syrup," by R. Brodie.
4. "Iophosphites," by Charles Thomas Tyrer, F.C.S.
5. "Medicinal Petroleum," by F. C. J. Bird.
6. "The Salient Features of the Scottish Flora," by G. C. Bruce, M.A., F.L.S.
7. "On the Strength of Commercial Samples of Alkaloidal Mixture," by Clarence A. Seyler, B.Sc., F.I.C.
8. "Phosphates and Platinum," by Wm. Geo. Stratton.
9. "Taur Bismuthi et Ammonii Citratis," by Wm. Geo. Stratton.
10. "Our Present Knowledge of the Mydriatic Group," by J. J. Marpe, M.D., &c.
11. "Infectant Soaps," by S. Rideal, D.Sc., F.I.C.

Presentation from "Bell and Hills Fund."  
Election of Formulary Committee.  
Place of Meeting for 1898.  
Election of Officers for 1897-98.

One paper was not placed on the programme—viz., that by Mr. Thomas G. Forshaw, of Bradford, "Pharmacist to His Majesty the King of Greece," on "Pharmacy Past and Present." We understand that in this rejected paper it was stated that the author was apprenticed in 1845 to Mr. William Wilson, of Hanley, that leeches were more in demand than now, that the profits on patent medicines had been cut down, that drug-companies had come into existence and anesthetics into popular use.

The proceedings really commenced with an explanation from Dr. McWalter in regard to his paper on

### ORGANOTHERAPY.

The PRESIDENT, who addressed an audience of about forty, recalled that at the previous afternoon's sitting the paper on "Organotherapy" was read in the temporary absence of Dr. McWalter. It would be remembered that Dr. McWalter's statement that the dried gland was better in glycerine was taken exception to by one or two gentlemen who took part in the discussion. Had the author in present he would no doubt have been able to give good reasons for the view he held; but he was with the members this morning, and he now asked him to give his reasons.

Dr. MCWALTER apologised for his absence during the discussion on his paper, and, lest his absence might be misconstrued into an act of courtesy, he had asked the President to grant his gracious indulgence to make an explanation. The points which he wanted to bring before the Conference in his paper were: That it was an egregious error in a blunder to desiccate the fresh animal extracts, because in so doing they dissipated out any virtue they might be; that the proper plan was to get the gland still wet from the animal and immerse it in a sterilised solution of glycerine and water, together with the addition

of some acid or alkali, according to the nature of the gland. The reasons why he objected to the gland being dried were these—that, in the first instance, *post-mortem* changes certainly took place; in the second place, although they did not know the active principle of many of these glands, still there was the chance of dissipating or destroying the ferment, because they changed the albuminoid element of the gland. Dr. McWalter was then proceeding to refer to the investigations of the Belgian pharmacists in this department of research, but was pulled up by the PRESIDENT, who told him to confine himself to the question. He recapitulated his reasons, and then thanked the Conference for being allowed to make his explanation.

The PRESIDENT thanked Dr. McWalter for his paper, and, with hearty applause, the thanks were voted.

At 10.15 Mr. NAYLOR read the following paper, a call for the author not being responded to.

### NOTE ON SOME SOLUBLE COMPOUNDS OF ARSENIC.

By G. G. Henderson, D.Sc., M.A., Professor of Chemistry in the Technical College, Glasgow.

In the course of an investigation into the reactions which take place between acidic oxides and the alkali salts of hydroxy-acids, I have prepared several compounds similar in type to tartar emetic, but containing arsenic in place of antimony. Some of these substances dissolve in water easily, without undergoing decomposition, and may therefore prove of some value in the administration of arsenic medicinally. For this reason I have thought it desirable to bring a description of them under the notice of the Pharmaceutical Conference.

Arsenious oxide dissolves readily in hot aqueous solutions of sodium hydrogen tartrate with the result that sodium arsenio-tartrate is formed according to the equation,  $As_2O_3 + 2NaHC_4H_4O_6 = H_2O + 2(AsO)NaC_4H_4O_6$ . The new salt is best prepared as follows. The calculated quantity (100 grammes arsenious oxide to 192 grammes crystallised sodium hydrogen tartrate) of finely-powdered arsenious oxide is added in small portions to a boiling solution of sodium hydrogen tartrate. After all the oxide is dissolved, the solution is boiled for about fifteen minutes longer, and then filtered and concentrated to small bulk on the water-bath. As the solution cools the salt crystallises out as a mass of delicate silky needles, which are collected on a filter, drained by the filter-pump, and purified by recrystallisation from water or from dilute (50-per-cent.) alcohol. A further crop of crystals can be obtained from the mother liquor by addition of alcohol. Analysis showed that the formula of sodium arsenio-tartrate is  $AsO \cdot NaC_4H_4O_6 \cdot 2\frac{1}{2}H_2O$ . It crystallises from water in groups of colourless prisms from 50-per-cent. alcohol in colourless plates. If heated to 105°, or if left to stand over sulphuric acid in a vacuum, it loses its water of crystallisation. It is quite stable in the solid state, and may even be heated for several hours to a temperature approaching 200° without undergoing decomposition. It is easily soluble in water, has a rather sweet but not unpleasant taste, and is of course very poisonous. Its solution has an acid reaction. Seeing that this compound of arsenic is soluble in water without decomposition, it occurred to me

that it might find useful application in medicine, and accordingly I handed some to the late Professor Charteris, of Glasgow University, for examination. Dr. Charteris found by experiment that the physiological action of the new salt is practically the same as that of "liquor arsenicalis" for which in many cases it should prove an excellent substitute. It will be seen from the formula that 1 grammie of sodium arsenio-tartrate contains arsenic equivalent to 0.3225 grammie of arsenious oxide.

Corresponding ammonium and potassium salts were also prepared in a similar manner, but for practical purposes the sodium salt has several advantages over those. Ammonium arsenio-tartrate is easily prepared, and crystallises in small lustrous needles which are readily soluble in water, but it is less stable than the sodium salt. When kept for some time the crystals lose their transparency and begin to crumble down, and if then treated with water are found to have decomposed to some extent into arsenious oxide and ammonium hydrogen tartrate. Potassium arsenio-tartrate is obtained, though with greater difficulty than the others, as a white crystalline powder, which, however, is decomposed into arsenious oxide and potassium hydrogen tartrate when treated with water. (For details regarding these and other arsenio-tartrates, see Chemical Society's *Journal*, 1895, page 102.)

Among the compounds which I obtained by the action of antimonious and arsenious oxides on salts of other hydroxy-acids, I may mention the antimonio and arsenio citrates. Both of these oxides were found to dissolve in boiling solutions of the primary citrates of sodium, potassium, and ammonium, and on addition of sufficient alcohol to the cooled solutions the new salts were thrown down in the form either of amorphous precipitates or of colourless syrups, which, however, became crystalline when left to stand for some time in contact with the mother liquor. The salts were purified by recrystallisation from hot 50-per-cent. alcohol, and were found to have the composition indicated by the formulae  $(\text{SbO})\text{M}_3(\text{C}_6\text{H}_5\text{O}_7)_2$  and  $(\text{AsO})\text{M}_3(\text{C}_6\text{H}_5\text{O}_7)_2$ , where M stands for Na, K, or  $(\text{NH}_4)$ , respectively. All form colourless crystals, which are easily soluble in water and fairly soluble in dilute alcohol. The antimonio-citrates are quite stable, but the arsenio-citrates, while apparently stable when in the solid form, decompose if their aqueous solutions are heated. From a practical point of view they are probably less suitable for medicinal purposes than the corresponding compounds with tartaric acid—i.e. the well-known tartar emetic and the arsenio-tartrate of sodium described above.

#### DISCUSSION.

10.21. The PRESIDENT said that the paper was one of deep interest to the Conference. Pharmacists were so accustomed to regard Fowler's solution as the best preparation of arsenic (in his own experience the hydrochloric solution was little used) that they did not look for anything to replace it. This new preparation of arsenic seemed to be one which should be medicinally useful, and, although it was stable at a high temperature, it remained to be seen how it would keep in solution, and behave when mixed with other drugs. It was, however, worthy of trial, and he hoped that pharmacists who were pharmacists indeed would bring it under the notice of medical men.

Mr. J. C. UMLEY said he understood that the salt contained water of crystallisation, and crumbled on exposure. If that was so, it would be very dangerous as a medicine; better that it should be dried, so that it would be constant. He thought he was right in regard to the salt containing water.

Mr. NAYLOR said  $2\frac{1}{2}$  molecules.

Mr. STANFORD wished to propose a vote of thanks to Dr. Henderson, because he had asked the doctor to contribute the paper. The communication came from the oldest laboratory in Glasgow—viz., the one at Anderson's College, now merged in the Technical College, which, though a series of buildings, was the largest technical college in the kingdom, and had 3,000 students. Soon a new building would be erected for the College close to the Grand Hotel. He also wished to say that Professor Henderson's laboratory was the only one in Glasgow in which organic chemistry was taught. He regretted to say that organic chemistry was not taught in the Glasgow University, where they had neither a laboratory for, nor professor of the subject. Pro-

fessor Henderson was doing good work, and worthily carrying out the traditions of his eminent predecessors.

Dr. ATTFIELD, in seconding the vote of thanks, said that a little more attention should be given to the salt before it was used medicinally. He noted that it was said to contain  $2\frac{1}{2}$  molecules of water; half-molecules were impossible. Dr. Henderson would doubtless be able to defend the opinion, but his object in mentioning the matter was to point out that salts containing  $2\frac{1}{2}$  molecules of water were often mixtures of two salts, one with 4, the other with 1 molecule of water. If that were so in this case, it would indicate that the salt was not a suitable one for use in medicine.

Thanks having formally been accorded to the author, Mr. LEO ATKINSON was called upon at 10.30 to read the following paper:—

#### PHARMACEUTICAL ETHICS—A RETROSPECT.

By Leo Atkinson.

Thirty-one years have passed since a paper on this subject was read by Mr. Joseph Ince before the Conference at Nottingham. This paper is properly regarded as one of the classics of pharmacy. It occurred to the writer that reviving this subject might possibly induce some of our younger *confères* to give consideration to the practical science of conduct, which, there is reason to fear, does not occupy a too prominent place in modern, or so-called up-to-date, business methods. At the time Mr. Ince's paper was written the Pharmaceutical Society was a voluntary institution and the Pharmaceutical Conference had only existed two years. Anyone could keep open shop for the sale of drugs and poisons. The evil and danger of permitting medicinal and dangerous drugs to be indiscriminately handled by ignorant traders was recognised alike by Parliament and the nation, so that two years later the Pharmaceutical Society was authorised by Government to examine and register who hereafter should practise pharmacy as a business profession.

Nothing could conceivably have been more opportune than the consideration of ethics in relation to pharmacy at that juncture. A new era was being inaugurated, and a new class of men bearing the stamp of educational fitness were expected gradually to replace and supersede the general traders who had appropriated the sale of drugs and called themselves chemists and druggists. The pharmacist of the next generation must inevitably have some education and professional training; to such a man some code of ethics might be considered a part of his stock-in-trade. Consciously or unconsciously everyone is guided by some principles in all social and business relations; whether the moral standard be high or low depends mainly on education, intellectual bias, and environment. The great aim which ethics may claim to exert on society is that each individual may so train his mind that his best actions become instinctive, and that which is mean or base repellent. It was this moral training which gave us a race of pharmacists in the past of whom any society might justly be proud; it is this training which has enabled us to retain men in our ranks at the present day who honourably maintain the high reputation of those who well and truly laid the foundation of British pharmacy.

Everyone will agree with Mr. Ince "the first ethical rule of the pharmacist is the necessity of the absolutely genuine character of his drugs. No drug or remedy should be admitted into his shop other than that which, in case of dangerous illness, he would not hesitate to supply the inmates of his own family circle."

The second rule is that the pharmacist degrades himself by the adoption of low and ruinous prices. So long as we sell articles sold by other classes of tradesmen, we must limit our charges to the same rate of profit. The guiding principle should be increased remuneration in proportion as the character of the articles makes greater demands on professional education and skill. The abstract soundness of this view can scarcely be questioned; yet the gradual reduction in dispensing charges is the most deplorable factor of these late days. The very foundation of professional pharmacy is being gradually whittled away. The ethical observance that dispensing charges should in no case be calculated on the initial cost of the ingredient used is now held by increasing numbers to be unsound and untenable. Yet to surrender this principle is to surrender the only title of professional pharmacists can

cl. Exorbitant prices are in no wise to be defended; yet the man who cuts down his dispensing-charges to the scale of  $\frac{1}{2}$  of a bricklayer's labourer is an enemy to his order.

Advertising in its relation to pharmacy is a delicate subject. The fact is incontrovertible that advertising is the spring of commercial activity, and has been the means of building up enormous industries. We may concede at once the impossibility of framing any regulations in regard to the ethics of pharmaceutical advertising; we must, however, reluctantly admit the advertisements of medicines and nostrums have an unenviable pre-eminence for qualities not verifiable. Unfortunately, pharmacy has to bear the rap of unscrupulous offenders outside its legitimate range. The meshes of the Pharmacy Act did not encompass the manufacturer; anyone—chimney-sweep, costermonger, or a scoundrel of quackery—can flood the press and the country with lying undertakings to provide perfect health and a happy old age for 1s.  $1\frac{1}{2}$ d. the box or bottle.

The enormous increase in the sale of nostrums is evident from the Revenue returns. In the year 1872 the annual revenue from patent-medicine stamps was 82,000*l.*; ten years later the amount was just doubled; in 1892 the tax produced 24,000*l.*, so that within the last twenty years the income from this source is tripled, and the people of Great Britain expend nearly 3,000,000*l.* sterling in secret remedies.

The ethical attitude of the pharmacist in regard to advertised nostrums is replete with difficulty. Many nostrums we recognise as useful and appropriate for the alleviation of ailments they are recommended for; of other specifics we make ignorant, alike as to composition or effect; but there is a third extensive class our intelligence assures us are hopeless frauds. Experience has taught most of us the pill or potion will never be fabricated that can impartially cure corruption, cancer, tuberculous bones, kidney, liver, and brain complications, and all children's ailments. The pulse, we are quite aware, are induced to waste money and health on these wretched swindles. Amongst many anomalies, is there anything more absurdly grotesque than a Government which frames laws to deal with the length of a skirt, the quantity of glyrine in a hair-wash, the gestures of a fool, or the unendo of a song? yet a Government that will not lift a finger to stay the brazen depredations of the quack on the health and lives of the people. We who are behind the scenes understand the subtle methods by which the public is influenced. Suggestive advertisements lead weak-minded people to fancy ailments purely imaginary. This method of insinuating on ignorance and credulity has been reduced to a fine art. Surely the ethics of ordinary social life, as well as the ethics of pharmacy, impose an obligation upon us we should not shrink from observing, though, individually, we care but little to stem this torrent or minimise the evil; collectively, it is not outside our power to bring this disgrace, clinging to us like the tunie of Nessus, under legislative interference and control. There is another phase of advertising adversely affecting pure pharmacy. It seems paradoxical that in the domain of medicine, the ordinary medical man should be quite as gullible as the general run of humanity. This discovery is presumably a transatlantic imitation; our cute cousins have immeasurable refinements in intriguing and catering for credulous man, be he medical or otherwise.

The modern medical curriculum has unfortunately restricted its requirements in pharmacognosy and materia medica to the narrowest limits. Young medical practitioners have scanty opportunity of acquiring any real knowledge of drugs; thus it is they fall easy victims to the advertising manufacturer of ready-made physic. That which alluring advertisement fails to effect is accomplished by methods no respecting individual would descend to. The ethical caitiff is incomprehensible which admits of employing someone to undertake work you would be ashamed to do yourself. The old judicial maxim "qui facit per alium facit pro se" has lost its force in our trading morality.

How we wonder the art of writing prescriptions is waning fast and the National Pharmacopoeia less frequently resuscitated than a heterogeneous collection of unofficial complexities? Medical disregard of professional ethics is extinguishing much that was best worth conserving in the joint interest of medicine and pharmacy. That this ethical neglect will bring its own Nemesis and exact a just retribu-

tion is not to be doubted. If medical men continue to be so stupidly irrational as to use and supply ready-made physic, the public will supply themselves without the intervention of either the doctor or the druggist.

Clearly as dispensing diminishes the pharmacist is bound to drift either into the ruck of general trade and sordid competition, or find salvation in catering for the higher requirements of science and scientific medicine. Man cannot live on abstractions; no amount of moral principles will replenish an impoverished exchequer. The downward trend of the bulk of pharmacy in one direction, and the aspirations of others sufficiently indicate some unavoidable differentiation in the not distant future. There is no special Providence watching over pharmacy to interfere with the inevitable laws of progress and decline. Excess of folly presages revolution, and circumstances, apparently adverse, may be hastening our avocation to a higher destiny.

It may not unreasonably be asked, Why discuss ethics if fierce commercial competition has virtually extinguished moral considerations in business affairs? What object can be attained by attempting to press forward when the aim of our desires moves farther off as we advance? History in this matter must be our guide—above the cloud with its shadow is the star with its light—history has revealed to us that revolutions devour their own offspring. Does not science teach us that the aggravation of a disease not infrequently evolves a remedy? At this day, even with all the side-lights of biography and contemporary literature, it is impossible to determine the origin of the sudden great and salutary change in English manners and habits prevailing in the early years of this century. We can fix a period when the highest in the land esteemed hard drinking and foul language the prerogatives of a gentleman. We can fix a period a few years later when either the one or the other of these attributes would mean ostracism and exclusion from all polite society. This profoundly ethical change was uninfluenced by legislation or pressure of public opinion; it was silently and imperceptibly accomplished by force of examples lost in obscurity, but we rejoice to know this ethical change is binding to the present day.

Is it quite outside the range of reasonable probability that some such change may not sweep our pharmaceutical manners? A retrospective glance may assist our judgment.

Thirty-one years ago the passing of a stringent Pharmacy Act was considered the sole hope of effecting a great deliverance, expressed by Mr. Ince as follows:—"Not that any legal measure will at one stroke, like the wand of an enchanter, transmute the incompetent and nondescript pharmacist into an intelligent and higher being. Every Government measure must respect existing rights, and assign a date from which its operations must commence. The first visible effect of passing such an Act will be to flood England with little druggists' shops and materially to swell the ranks of mendicity. Time, the great restorer, will set matters right, and in due course we shall have men of superior culture and known ability; then, and not till then, may we truly talk of ethics, not as polite observances, but as a code."

Thirty-one years have passed by. For twenty-eight years of this period we have had the Pharmacy Act and compulsory examination Mr. Ince so hopefully regarded. Must we not sorrowfully admit that so far, neither by fulness of time nor legislative restriction, have those reasonable expectations been realised? We can now see clearly the incursion of mediocrity, in the absence of higher educational qualification, has been the perpetuation of a mediocritocratic class to whom ethical principles and their application vainly appeal. We see also the effect of the great democratic wave which has swept over all civilised communities. Strange would it be indeed if this revolutionary change should have affected, in greater or less degree, every business or profession to the exclusion of pharmacy. With past experience to guide us, we can see how far pharmaceutical ethics have suffered by the abnormal development of company-trading; we discern the effect of an intense interest in trade and a reprehensible craze after cheapness apparently inspiring every class.

Thirty-one years ago our aristocracy had little connection with trade in its general aspect. At the present day there is no branch of commerce, wholesale, retail, or industrial, our titled aristocracy have not invaded. Yet, withal, we have reason to believe pharmacy is once again approaching the

threshold of a new epoch. The Pharmaceutical Society, whatever its backslidings may have been, has ever been steadfast in the cause of education; the latest effort is to raise the educational standard. To raise the educational standard of any business or profession must necessarily raise the status of the body corporate. Our hopes are centred in this upheaval. There is no more healthy force than vigorous all-round culture, and the accession of men of wider culture will be welcome auxiliaries.

In view of these altering circumstances, may we not usefully appeal to those who undertake the business-training of young candidates for pharmacy? The apprenticeship stage is the stage when the mind is easily influenced yet permanently moulded; it is the time which, well or ill employed, affects a man's whole after life—habits at first, cobwebs at last, become cables. There are a few practical corner-stones on which any superstructure may be reared.

Take the inculcation of loyalty to the parent Society as an ethical foundation. May part of the instruction be that it is a commercial blunder as well as a breach of pharmaceutical ethics to degrade the pharmacy to the level of a toy-shop. Above all, let it be understood that for a man to barter his intelligence and pawn his qualification to any trading adventurers is degrading to himself, degrading to his avocation, and a fraud on society. There is a common breach of pharmacy ethics which calls for reform—the sale of scheduled poisons to friends or well-known customers without insisting on compliance with the Act. This is a constant trouble. It is not a small matter; it strikes at the very root of our position as responsible men, and is absolutely inexcusable on any ground or pretence whatsoever. It should not be a great tax on the memory to remember that a straight line is the shortest in morals as well as geometry. Bearing this in mind always in regard to our relations with our fellow-craftsmen, may we ever avoid the temptation to

Convey a libel in a frown,  
Or wink a reprobation down.

As we expect to recruit our ranks in future from a higher class, it is not unreasonable to expect a higher sense of conduct. Ethical example and precept may yet become a living factor; it is idle to frame theories of moral perfection which we know can never be more than theories. The observance of some rules of conduct may become customary. Custom in those matters becomes stronger than laws; it is by custom the largest financial transactions are conducted without legal documents. Transactions involving millions daily are thus entered into. A large proportion might be repudiated on technical grounds, yet the positive morality of commerce is found sufficient to enforce them.

There is no association better fitted to foster and encourage practical ethics than the British Pharmaceutical Conference, its very *raison d'être* being mutual advancement and improvement. Individually, each may do something towards the consummation of this object. Every man's mission here is to contribute his share to the sum total of labour; if we cannot attain the ideally possible there are many substantial stages of progress. In every great epoch some predominating idea is imperceptibly working, shaping the current of events and determining their ultimate issue. We need not therefore

Deem the irrevocable past  
As wholly wasted, wholly vain;  
If, rising on its wreck at last,  
To something nobler we attain.

The paper created more interest and applause than any read to the meeting, but the

#### DISCUSSION

was not encouraged by the Chair, owing to the large amount of business to be got through and for other reasons stated below.

The PRESIDENT said there were 1,400 members of 10.50. The Conference, and there was not one amongst them who could not say something on this subject. But he was going to ask the members to curtail the discussion. They would be very pleased to hear what had really to be said on the matter, but he would remind them that it was a paper which they would be able to think about, and that there were a number of trade-journals to which they might write letters

on the subject. They would be able to write well-thought-out letters, each taking up the various parts of the subject which most deeply interested them.

Mr. S. R. ATKINS said Mr. Atkinson had remarked that we could not live on moral principles. He (Mr. Atkins) very well thought we could not live without them. In Scotland all lands on the earth—(laughter)—a philosophical party of this kind would be welcomed, its philosophical tone would meet with a warm reception in Scottish intellect. (Laughter.) In regard to pharmaceutical ethics, he asked that to look at the matter from the point of view of their two bodies. A man must work to eat, and he must eat to live. But that was not the end of it. A man did not live by bread alone in any sense whatever. No man had a right to be a mere money-grubber. Their function was to do something for the body corporate to which they belonged. What were the relations they should exhibit the one to the other? He ventured to think integrity, generosity, sympathy with the actions and hearty enjoyment with those who had had success in life. That was the function of the British Pharmaceutical Conference. It was formed, and it had throughout its career men distinguished for their high principle. If they went back to the parent Society, represented there most ably by the President of the Pharmaceutical Society—(hear, hear)—coming as he did from the great historic house in Oxford Street—what was that crowd that Jacob Bell went forth upon, rousing the pharmacists of this country to a sense of the necessity of uniting for pharmaceutical purposes? That was a noble crusade on the part of Jacob Bell. (Applause.) In regard to the medical profession, what should be their relations with them? He thought it should be this. The function of the pharmacist was to make and dispense—he used the word in its widest sense; he meant to manufacture and supply to the public medicines and remedies. As regards the medical profession, it was theirs to diagnose disease and its prescriptions and administer that medicine. He thought it was for the pharmacists to maintain loyalty and fairly the function which they had, and not to touch upon other men's matters. (Hear, hear.) If they did that, and brought into play the principle of honesty and integrity in the manufacture of their preparations, he thought they had a right to claim a fair remuneration. In regard to the general public, the same ground was covered. He believed it was very hard lines in these days for some men to bring an elevated ethical consideration to the circumstances of their position. The times were very hard for our weaker men. He could take them at that moment into a small country town in the West of England, where lived a most cultured man who was starving within a year or a little more. It was hard for such a man to maintain an elevated view of the ethical relations of pharmacy. (Hear, hear.) And yet he ventured to think their only hope for the future was to observe this ground. (Applause.) They should have to show that they were worthy of the trust reposed in them as educated, honest, intelligent, cultured men. (Applause.) It might be—he did not see how it could well be avoided—that there would be differentiation in regard to their work. It was a cruel business that the grocer who had been fined for selling poisons could at once contract himself out of the Pharmacy Act by making himself into a company. (Hear, hear.) It was an illegitimate if not an illegal, aspect of the question. It was hard lines for pharmacists, that and other considerations of modern times. (Applause.)

The PRESIDENT remarked that as something had been said on the paper about the States, perhaps Professor Remington would say a word. (Laughter.)

Professor REMINGTON said he regretted to have to speak for his country on the subject of patent medicines, for he considered that possibly they had as much to do with the question of ethics as anything else, because the good old principles that animated all honest men were apprehended, and as well known in this country as they were in his. (Hear, hear.) In connection with this subject he could not help thinking of a little experience that he had with one of their American newspapers. Some time ago there was an agitation against the use of the Latin language in prescriptions. (Laughter.) He did not know whether we had any movement of that kind in Great Britain. It went far with them that a Bill was introduced into the Legislature

ture the State of Pennsylvania providing that physicians who should thereafter write a prescription in the Latin language should be subjected to a severe penalty—(laughter)—and further than that, that the prescription must be written in the English language, understandable by every American citizen. The label must be written by the apothecary in the English language, and the prescription written out in full on the label, so that any American citizen could take up that prescription himself if he wanted to—(laughter)—rather a sweeping and injurious state of things for the drug-business. The question was how to meet this proposal. A newspaper took it up and applauded it in an editorial, and the question arose how pharmacists should meet this movement. He called upon the editor, was received freely, and was told that the Bill was in the pigeon-hole, and that they were going to introduce it in a few days. After talking to the editor for half an hour without effect he did not seem to appreciate that the fact of there being twelve kinds of snake-root in America, and two kinds Indian hemp, some harmless, some poisonous—he noticed on the editor's desk the advertisement of a large number of quack remedies and nostrums in his paper, and turning to him he said, "My dear sir, you demand that every American citizen should know exactly what goes into his stomach in the way of medicine. Well, look here, there is your newspaper with all these patent-medicines advertised in it. What'll become of them if you pass your Bill?" The editor said, "I don't think that has anything to do with it." But I answered the editor thus: You demand that the physician and the apothecary should place on every bottle the constituents of what it contains in the English language. Do you suppose we are going to stand that? What is going to become of your business of advertising if that is done, and the people all over the country will know for themselves what the bottles contain?" That was enough. The Bill was never heard of, and the editor changed his mind. (Laughter.) The question of dollars and cents he could understand. (Laughter.) He was not going to say anything about the question of common honesty and honor because he recognised that the standards in this country and the standards in his country were equally good as far as pharmacy was concerned. (Hear, hear.) But he might as well give them one little point about advertising patent medicines which had recently come under his notice. He did not know that in this country they had got quite the latest thing in that. One of the latest points about advertising these things was, that the advertisement told what the patent medicine was not good for. (Laughter.) For instance, at the head of the advertisement was a long list of things that the medicine was good for—consumption, bronchitis, and a score of other things—and down at the bottom you got—"Is not good for corns." (Laughter.)

Mr. ENRY GADD said there were two ways in which they could very specially promote pharmaceutical ethics. He would suggest that most strenuous efforts be made in every centre of pharmacy to advance the educational facilities of their assistants and apprentices. The other point he insisted upon was that every chemist and druggist should go into the ranks of the Pharmaceutical Society. (Hear, hear.) Then the Society could say they had at their back the whole of the chemists of the country, and they could force the Government to give them an amended Pharmacy Act.

Mr. JAMES MACKENZIE suggested that this subject of pharmaceutical ethics should be brought formally before the Conference, and the debates afterwards published in book form. In that way they could carry those higher notions through.

Mr. ANDERSON RUSSELL said there had been an endeavour to take up this subject in the local associations, and he hoped something useful would come from the discussion. His idea was that the local associations should back the Pharmaceutical Society and its Council in order that they might have additional powers to strike a man's name off the register if he did anything which might be considered beneath the lowest level of any standard of ethics that might be set up. The standard might be raised from time to time. (Applause.)

Mr. STANFORD said there was one think in education which would take them a very long time to accomplish. It was a gigantic task, and that was the education of the general public. (Laughter.) The public must be educated

on this question, and it would take a very long time to do that. Mr. Holloway once said it was not the 5 per cent. sensible people that he advertised for, but the 95 per cent. insensible people. And those were the people that would require to be educated. (Laughter.)

The PRESIDENT at this point put an end to the debate, expressing regret that, in justice to authors who had prepared other papers, he had to adopt that extreme step. He promised, however, that an opportunity for a full-dress debate on this question of ethics would be given at some future conference, probably next year. Meantime local associations should discuss the question in all its bearings. He did not see why papers on it should not be read in every provincial association, and even in Bloomsbury Square itself. He thanked Mr. Atkinson for his paper.

Mr. Atkinson bowed his acknowledgments.

11.20. The next paper was the following one, which was read by the author:—

#### EASTON'S SYRUP.

By R. Brodie.

In the introductory part of this paper the author referred to the introduction of phosphate syrups into medicine, and the early work by pharmacists upon them—e.g., by M. Carteige in 1871, and about the same time Gale and Schweitzer dealt with the subject, Gale's process for preparing syr. ferri phos. being introduced into the 1867 B.P. The formula for Easton's syrup has been defective from the beginning, the tendency of it to become brown being an accentuated weakness of the syr. ferri phos. To prevent this undesirable change many suggestions have been made, and the author spoke in a pleasant way of the extremely varied opinions which have been expressed about the matter. This seems to have culminated in Mr. R. Wright's paper on the subject, communicated to the Conference in 1893, since which little of importance has been published on the matter. Whether that is due to Mr. Wright's formula having proved to be satisfactory, or to extempore preparation of the syrup from concentrated liquor, is a question; but Mr. Brodie inclined to the latter explanation, although he held that the liquors are not all that they are represented to be. For the benefit of those who like to make their own syrup he submitted the subjoined formula, which provides a perfectly bright preparation free from deposit:—

|                                                     |     |     |            |  |
|-----------------------------------------------------|-----|-----|------------|--|
| Take of                                             |     |     |            |  |
| Iron wire free from rust                            | ... | ... | 90 gr.     |  |
| Phosphoric acid (s.g. 1.5)                          | ... | ... | 2 fl. oz.  |  |
| Hypophosphorous acid                                | ... | ... | 1 dr.      |  |
| Strychnine in crystals                              | ... | ... | 6 gr.      |  |
| Hydrochlorate of quinine                            | ... | ... | 120 gr.    |  |
| Distilled water a sufficient quantity to produce... | ... | ... | 24 fl. oz. |  |

Put the acids into a flask with 2 oz. of the water, introduce the iron wire (previously cut up in inch lengths), plug the neck of the flask with cotton-wool, and set aside, allowing the action to proceed without the application of heat. Dissolve the strychnine by means of a very gentle heat in 1 oz. of water, to which has been added an additional drachm of phosphoric acid. After the strychnine is dissolved add the hydrochlorate of quinine.

Filter both solutions into the syrup previously prepared by dissolving the 16 oz. of sugar in 8 oz. of water by means of heat, but care must be taken that the solutions, as well as the syrup, be thoroughly cooled before being mixed.

A difference between this formula and the B.P.C. one is the substitution of hydrochlorate for phosphate of quinine, an alteration which Mr. Brodie justified.

The author exhibited samples of the syrup prepared in the manner described. One prepared in May, 1895, was of a brown colour, but showed no deposit; so also more recent specimens, which, however, were lighter in colour.

#### DISCUSSION.

11.30. The PRESIDENT, in inviting discussion, said that the syrup was undoubtedly best kept in small bottles. The point of Mr. Brodie's paper was the use of hydrochlorate of quinine instead of phosphate, and he thought that whatever they as pharmacists might think of that as an improvement, they had to consider what medical men wanted, which was a syrup containing phosphate of quinine.

Mr. J. C. UMNEY said that one of the advantages of hydrochlorate of quinine and anhydrous quinine instead of phosphate was that they provided a more constant preparation. This was because there were more than one phosphate. As far as he could remember, one contained 71, the other 76 per cent. of anhydrous quinine, and if the latter salt were used the syrup might exhibit a crystallisation of quinine. This was, of course, avoided when the equivalent of hydrochlorate or hydrate was used.

11.35. Mr. NAYLOR read the following paper on:—

#### HYPOPHOSPHITES.

By Charles T. Tyer, F.C.S.

Apart from actual practice, the wording of the qualitative tests for the hypophosphites is not conducive to a belief in their accuracy. Thus for sodium hypophosphate the B.P. states that 5 gr. dissolved in  $\frac{1}{2}$  oz. distilled water, and the solution boiled for ten minutes with  $11\frac{1}{2}$  gr. of permanganate of potassium, and filtered, should afford a nearly colourless solution. Attfield states that 5 gr. of hypophosphate of calcium, if of good quality, will almost decolourise a solution of 12 gr. of permanganate of potash on boiling the mixture for about ten minutes. The words "almost," "about," and "nearly" indicate a want of precision in the permanganate method.

"U.S.P."—If 0.1 grammes of dry sodium hypophosphate be dissolved in 10 c.c. of water, mixed with 7.5 c.c. of sulphuric acid and 40 c.c. of decinormal potassium permanganate V.S., and the mixture boiled for fifteen minutes, it should require not more than 3 c.c. of decinormal oxalic acid V.S. to discharge the red colour (corresponding to at least 97.96 per cent. of the pure salt).

Even with an absolutely pure salt in excess, the permanganate-method is not quite satisfactory, the rate and violence of boiling making a difference of 2 to 5 per cent.

Of the above, we have found the U.S.P. to give the most accurate results, the great advantage being the addition of acid sulphuric in excess, which keeps the manganese in solution, and does not require filtration. The progress of the reaction can be observed much better. An improvement on this method is to add a slightly greater excess of permanganate—say, 1 per cent.—and titrate the excess with oxalic acid. The method is of use only in the absence of impurities, but no hypophosphate is absolutely pure. Quantities of calcium phosphate, soda phosphite, sodium sulphite, and sodium hyposulphite have been added to the hypophosphites in quantities up to 2 per cent. and more, yet the mixtures apparently answer the B.P. permanganate-test, because phosphite, sulphite, and hyposulphite reduce permanganate. The phosphate reduces it indirectly—that is, boiling calcium phosphate with calcium hypophosphate produces phosphite with the evolution of hydrogen.

Some authors give to calcium, soda, and potassium hypophosphate one molecule of water. This only occurs when the salt is deposited from a saturated solution in the cold. The salts of commerce are anhydrous.

I note that Attfield gives the formula for hypophosphate of sodium as  $\text{NaPH}_2\text{O}_2\text{H}_2\text{O}$ , whereas the B.P. gives  $\text{NaPH}_2\text{O}_2$ .

11.95 gr.  $\text{KMnO}_4$  correspond to 100 per cent. sodium hypoph.

The B.P. states 11.5 gr.  $\text{KMnO}_4$  to be used.

$$\frac{11.5 \times 100}{11.95} = 96.23 \text{ per cent. sodium hypoph.}$$

Although from the qualitative tests there is no allowance for impurity, the volumetric test allows 3.67 per cent.

In the directions for the calcium-hypo. test a "solution" of permanganate is to be used; in directions for sodium-hypo. test the word "solution" is left out.

The following experiments were carried out in order to arrive at a satisfactory method of estimation, and to observe the faults of the various reduction-processes applicable:—

*Reactions with Mercuric Chloride.*—Calcium, sodium, and potassium hypophosphites react in the same way, whether excess of the hypophosphate or excess of the mercury salt is used. In cold, partial reduction to subchloride; on boiling, reduction to mercury; but when hydrochloric acid is present in excess, complete reduction to subchloride in the cold, and on standing in cold to mercury. This process is only available with success to the barium hypophosphate, as noted by Mr. Coull, B.P.C., 1895.

*Reactions with Copper Sulphate.*—Calcium, sodium and potassium hypophosphites react in the same manner with copper sulphate.

(a) When the copper salt is in excess, a mixture of protoxide of copper and copper is formed.

(b) When the hypophosphate is in excess, copper remains.

These reactions do not take place in the cold, even on standing for several days. More boiling is required to start a reaction when the hypophosphate is in excess, and then once started it is more violent. More boiling is required for the sodium than for the calcium, and for the potassium than for either. In all cases reduction is accelerated by the addition of a small quantity of sulphuric acid.

*Reactions with Copper Chloride.*—With calcium (a) copper in excess, no reaction in the cold, reductions to subchloride on boiling. (b) Hypophosphate in excess, partial reduction to subchloride on standing, reduction to subchloride on boiling.

With sodium hypophosphate, (a) copper in excess, partial reduction to subchloride in the cold, complete reduction to subchloride on boiling. (b) Hypophosphate in excess, partial reduction to subchloride in cold, complete reduction to copper on boiling.

With potassium hypophosphate, (a) copper in excess, partial reduction to subchloride in cold, to subchloride on boiling. (b) Hypophosphate in excess, partial reduction to subchloride in cold, to copper and protoxide on boiling.

With hypophosphorous acid and copper sulphate, whether the copper is in excess or the hypophosphate in excess, reduction to copper.

With copper chloride, whether the copper is in excess or the acid in excess, partial reduction to subchloride in cold, and complete reduction to subchloride on boiling.

Estimation of the hypophosphites by reduction of copper sulphate solution has been found to be very accurate. One gramme of the sample is dissolved in distilled water and barium-chloride solution (5 per cent.) added in slight excess (5 c.c. in these experiments) to precipitate any sulphite, sulphate, phosphite, or phosphate present. Now to stand for fifteen minutes, filter, and wash any precipitate; the impurities, if appreciable, can then be weighed, or titrated for the next tests. Copper-sulphate solution (10 per cent.) is added to the filtrate, in excess, with 5 c.c. conc. H<sub>2</sub>S. The solution is then boiled for ten minutes, when the sulphite of the copper is reduced to metal with a proportion of protoxide and some barium sulphate. This precipitate is now washed by decantation, dissolved in 30-per-cent. nitric acid, sodium carbonate added until a slight precipitate is formed, acetic acid added in excess, followed by potassium iodide and starch liquor, and the mixture titrated with thiosulphate solution.

In this method there is a point of obvious importance to be noted. If sulphuric acid is added in large excess (by 20 c.c. in the above example) only one molecule of copper is precipitated against two molecules, if there is only a small percentage of acid present. In the application of this method to the iron salt, the salt is dissolved in 20-per-cent. solution of citrate of potash, and well diluted before reduction.

A method giving good results, but somewhat more troublesome than the above, is to reduce cupric-chloride, oxide, or the precipitate with nitric acid, and titrating with volumetric stannous chloride.

*Qualitative Tests.*—In all cases the tests of the U.S.P. are more comprehensive and better than those of the B.P. The barium-chloride precipitate in cold solution comprehends all impurities likely to be present. This precipitate includes phosphate, phosphite, sulphate, and rarely sulphite. An average commercially-pure sample will contain phosphite as its greatest impurity, it being, on a manufacturing scale, impossible to exclude this. It has been stated that sulphites are reduced from sulphate present. I have made experiments with all the hypophosphites and hypophosphorous acids on insoluble and soluble sulphates, standing the mixtures for weeks, boiling for several hours, and keeping at a temperature of 120° F. for three weeks, paper soaked in 10 per cent. acetic acid being suspended just over the solutions, and in no case has reduction taken place ( $\text{SO}_2$ , or a sulphide reacts immediately, with a hypophosphate to form  $\text{S}^{2-}$  and then  $\text{H}_2\text{S}$ ). Thus confirming Mr. Naylor's experiments. Other tests have confirmed these results.

differentiate between the barium-chloride precipitates I will give the following methods:—

(1) To a portion of solution of a hypophosphite is added mæsia-test solution; phosphate is precipitated.

(2) Add barium chloride, acidulated with  $HCl$ , then boil for 10 minutes, add dilute nitric acid and boil; residue will be sulphate.

(3) Add barium chloride to the neutral solution of the hypophosphite, collect the precipitate and wash, scrape the precipitate off the filter-paper and place in a test-tube with 5 c.c. water, add some pure granulated zinc, then hydrochloric acid, and boil, suspending some lead-acetate paper in the mouth of the tube, any discolouration indicates sulphite— $SO_3^{2-}$  can be detected thus.

(4) Take another portion of the above precipitate, with 5 c.c. water, heat to boiling, and add 3 c.c. hydrochloric acid; continue well boiling for one minute, when all  $SO_2$  will be driven off if sulphite is present without having time to act on the phosphite present. Then add zinc; phosphate will be indicated by action of  $PH_3$  on silver-nitrate paper. A piece of lead-acetate paper should also be suspended in case  $H_2S$  is also present.

I experimenting for the above tests I found that both hypophosphorous acid and phosphorous acid were reduced to  $H_2S$  by zinc and  $HCl$ , so that it is very essential that the precipitate should be well washed.

I examining samples of recent date, and others some years old, in no case did I find sulphite. In the above experiments various percentages of sodium sulphite were added. The only way in which sulphite could be present would be if gases from coke-furnaces accidentally found the exit in a room in which the hypophosphite was prepared. To test this I placed a plate containing moist soda hypophosphite near an open coke-furnace for two hours; a trace of sulphite was distinctly present.

Because of the presence of  $H_2S$  in hypophosphorous acid and hypophosphite syrups has been the subject of much discussion. Having failed by any means to reduce a sulphite by hypophosphite or the acid, I looked for it as due to some other cause, either in the process of manufacture or in its treatment or using for syrups. Finding that zinc and sulphuric acid when added to hypophosphorous acid evolved  $PH_3$  and  $H_2S$ , I sought for an analogous reaction. Iron was found to act in like manner. Charcoal, however, was the only like article, being used in filtration. Hypophosphorous acid has always a slight trace of sulphuric acid, in order to free it entirely from barium. I found that if such hypophosphorous acid was boiled with animal charcoal  $H_2S$  was evolved. Here, I think, is the cause of the whole trouble. Until lately charcoal as been used for filtration, as it gets rid of any colour and removes from suspended barium sulphate, and occasionally when hurried the acid has been filtered whilst hot through charcoal; the sulphuric acid is decomposed by the charcoal, forming  $SO_2$ , which is acted on by the hypophosphorous acid forming  $H_2S$ . The action also takes place in the cold on long standing.

There is, however, a slight distinctive odour generated in pure soda and potash hypophosphites on long keeping, which is distinct from  $PH_3$  or  $H_2S$ . I am inclined to attribute it to decomposition of the hypophosphite resulting in gaseous  $P_2H_4$ .

*Qualitative Tests.—Calcium*—The solubility is 72 per cent at  $15^{\circ}C.$ , and commercial samples are not completely and easily soluble under this. The B.P. ignition-test gives an incorrect impression. Hydrogen as well as  $PH_3$  are evolved. A slight latitude should certainly be allowed for a precipitate by barium chloride—say 2 to 3 per cent.

*Sodium and Potassium Hypophosphites*.—The U.S.P. test for the detection of potash in soda should be included in the B.P. Some latitude with regard to barium-chloride precipitate should be allowed. More phosphate will be found in the soda salt than in the others. A trace of carbonate is always, and should be always, present, for two reasons: firstly, to insure the complete absence of lime, the latter being more soluble than is generally supposed; and, secondly, to prevent the generation of the odour above mentioned on keeping. This has been found a very effective preventive of this decomposition.

*Barium Hypophosphite*.—This salt, if completely soluble and neutral, is generally pure. It should be neutral; if alkaline, barium hydrate may be present, and will deposit

on boiling; if acid, acid phosphate of barium may be present or the acidity may be due to hypophosphorous acid, in which case it is particularly liable to gaseous-reduction products on keeping. One point of particular importance is the testing for nitrates, which can be carried out by the usual iron-sulphate test. The presence of nitrates may be due to use in its manufacture of imperfectly-prepared barium hydrate, which is made from the nitrate of barium. Nitrate of barium and hypophosphite of barium form a particularly explosive mixture.

*Iron Hypophosphite*.—The extended use of this article warrants its inclusion in the B.P. The U.S.P. ferric hypophosphite is preferable to the ferrous salt. It is best prepared from sodium hypophosphite and liquor ferri perchlor. The ordinary commercial article as often sold in England is very unsatisfactory. It is a mixture of ferrous and ferric hypophosphite. It is not very soluble in hypophosphorous acid and neutral solution of potassium citrate. The ferric salt, however, can be made perfectly soluble in these solvents. It is not as U.S.P. states quite stable in the air, being slightly deliquescent.

*Acid. Hypophosphite*.—This article is used as a reducing-agent in analysis as well as in pharmacy. It should be of a special purity as regards the presence of dissolved salts. Barium is a possible impurity. The slight solubility of barium sulphate in hypophosphorous acid renders the presence of a trace of sulphuric acid necessary. The presence of sodium and potassium are indicated by the flame-test. There should not be more than a slight residue left upon evaporation and ignition in a porcelain crucible. The presence of excessive quantities of silica due to evaporation in bad material is indicated by diluting the acid with nine times its volume of water, and, on standing twenty-four hours, any appreciable quantity of silica is deposited. Nitrate should be tested for as in the barium hypophosphite. It should not darken with  $H_2S$ . It should be free from odour, and colourless. The specific gravity should be 1.137, corresponding to 30 per cent. of the acid.

Arsenic should be tested for in all hypophosphites, being a possible impurity in badly-refined phosphorus.

#### DISCUSSION.

11.55. The PRESIDENT having called for discussion on this paper, Dr. ATTFIELD, responding to it, said that Mr. Charles Thomas Tyre had supplied to pharmacists in this paper exactly what they wanted. He, personally, had experienced the paucity of information in the literature of hypophosphites when he came to look it up twelve months ago, and all who had to do with Pharmacopœia revision would agree with him as to the value of this paper. He was sure Professor Remington would corroborate him in that.

Professor REMINGTON said it was just the kind of paper that Pharmacopœia revisers wanted. Nothing was more profitable in the way of criticism than going over the tests and seeing how they behaved.

Mr. BIRD corroborated those observations regarding the paucity of hypophosphitic literature, and expressed the opinion that only manufacturers of the salts could give the desired information. Mr. Bird then dealt with the points of the paper, emphasising those of greatest importance, and expressed his surprise that Mr. Tyre had not found sulphites as an impurity, which was contrary to his experience. Regarding the malodour, he had some time ago shown that it was due to the impurities in the hypophosphites—an observation which had been corroborated by Mr. Naylor after a more extensive investigation, he showing that sulphites were the cause of it. Mr. Bird also recalled the fact that he had shown the best way of freeing hypophosphites from such impurities (present in sodium hypophosphite to the extent of 10 per cent. sometimes) was to precipitate with barium hypophosphite. No samples of hypophosphites which he could find in the market would stand the lead-acetate test, which fairly corroborated his statement as to the presence of sulphite.

Mr. J. C. UMNEY, who spoke in the midst of a thunder-storm, so that his sentences were indistinctly heard, remarked that Mr. Tyre gave the solubility of calcium hypophosphite as 1 in 72, whereas the B.P. gave it as 1 in 6. He had been told that the salt could not be prepared on the B.P. standard, and he hoped that Professor Attfield would

note the 1 in 7.2. As to the presence of nitrate, which was the cause of syrups turning brown, that had been the subject of a controversy between him and Mr. T. Tyrer, and he was glad that the matter had been cleared up.

Mr. NAYLOR hoped that Mr. Charles Tyrer would still continue this investigation. He was not prepared to accept the present contribution as complete, and was much surprised that he had not found sulphite in the salts. He (Mr. Naylor) had.

Mr. MABEN said he could homologate all that had been said as to the sulphuretted odour. He had been interested in that ten years ago, when the Formulary Committee was looking into the hypophosphite-syrup question, and the conclusion that he had come to was that it was due to the sugar. (No. no.) About 90 per cent. of the sugar in the market was faced with ultramarine, and that was where the odour came from.

Mr. MACEWAN remarked that Mr. Maben perhaps did not expect them to take that statement seriously. (Laughter.) Tons of sugar were made every day which was absolutely free from facing; and the fact had to be noted that these pure sugars did not in thin syrups give the odour when sulphuric acid was added, but that they did when hypophosphorous acid was used.

Mr. JOHN NESBIT, who considered the paper a model one, said that although he was quite convinced that there was sulphite in hypophosphites, he had years ago come to the same conclusion as Mr. Maben.

Mr. MABEN repeated that he knew as a fact that 90 per cent. of common sugar was faced.

The PRESIDENT said Mr. Maben's statement should be taken seriously; there was such sugar faced with sulphur blue, but tons of sugar were made quite free from impurity.

Mr. THOMAS TYRER, who was called upon to reply on behalf of his son, said that the work had been entirely done by the latter, and he alone was responsible, but he did not wish to dissociate himself from it, as the firm was primarily responsible. Some of the criticism passed on the paper was correct and would be looked into. They had found the U.S.P. tests to be the best in literature on the subject. He was glad that his son had done such a thing in pharmaceutical ethics as demonstrated it to be possible to get a good article at the cheapest price. (Laughter.) He also acknowledged his indebtedness to Mr. Umney for calling his attention to the nitrate impurity, for although of course he denied that his firm could send out such a thing—(laughter)—they straightway set about corroborating the observation, and they did.

12.23. The next paper read was on

#### MEDICINAL PETROLEUM.

By F. C. J. Bird.

Petroleum, in the form of paraffinum liquidum and paraffinum molle, has lately acquired considerable prominence as a medicinal agent, and the object of the present note is to direct attention to an impurity, of frequent occurrence in commercial samples, which interferes with the keeping properties of those combinations in which petroleum is usually administered.

When certain samples of petroleum oil are emulsified, a pure hypophosphite being one of the accompanying ingredients, the emulsion is found to develop after a time a strong sulphuretted odour. This naturally suggests the presence of sulphur in some form, and in order to ascertain to what extent this impurity occurs in the petroleum products of commerce an examination was made of a number of samples obtained from various sources.

The principal tests available for the detection of sulphur are the following:—

(1) *The Combustion-test.*—From 1 to 2 fl. oz. of oil are burned in an apparatus similar to that used in the estimation of sulphur in coal-gas. A lamp is substituted for the Bunsen burner, and, to ensure perfect combustion, the end of the trumpet-tube should be closed by an asbestos disc pierced with a circular hole to admit the flame of the lamp. Lumps of carbonate of ammonium having been placed on the disc the lamp is allowed to burn for seven or eight hours; the condensed products of combustion, including washings of the "tower," heated with excess of nitric acid, and the sulphur precipitated as sulphate with barium nitrate. Several samples were burned in this manner, results being

obtained in each instance agreeing with those given by the reduction-test mentioned later on.

(2) The sample of oil is boiled for some time in a flask under an inverted condenser, with a fragment of metallic sodium. After cooling water is added drop by drop until the sodium is dissolved; more water is then added, and the liquids separated. If the petroleum contains sulphur, sodium-nitroprusside solution strikes a fine violet hue colour. This test is only effective with sulphur compounds which form sodium sulphide with metallic sodium.

(3) On boiling with nitric acid sulphur compounds are oxidised more or less completely, and may be precipitated as barium sulphate. This, however, is not a convenient method, for to ensure complete oxidation it is necessary to heat the oil for some time in a sealed tube with a large excess of nitric acid.

(4) Oils containing sulphur compounds give a brown coloration when boiled for a few minutes with alcohol to which a few drops of ammonia and a little nitrate of silver solution have been added. This test has not proved satisfactory in my hands, being somewhat erratic and wanting in delicacy.

(5) No change in colour is produced by sulphur-free oil when boiled with a solution of litharge in caustic soda. The solution is made as follows:—Caustic soda, 1½ dr.; distilled water to 10 fl. dr. Heat to boiling-point, and whilst boiling add litharge to saturation. Decant the clear liquid. It is by no means an easy matter to boil this solution with oil, for the mixture is liable to such excessive bumping that the contents are almost certain to be projected bodily from the test-tube with explosive violence. Moreover, this test, though giving a black to brown colour with much sulphur, is insensitive to fairly pure oils. I have been able to devise an improved test, which is very sensitive, acts in the cold, and gives results agreeing closely with the indication of the reduction-test. Place in a test-tube 1 fl. dr. of the white mineral oil to be examined, add  $\frac{1}{2}$  dr. absolute alcohol, and shake well. Then add two drops of the litharge solution, and shake again for a few seconds. The mixture quickly assumes a deep orange tint with very impure oils, and according to the amount of impurity present passes through all the gradations of orange and yellow up to white. The full depth of colour is attained in about a quarter of an hour. At present this test does not answer satisfactorily either with yellow oil or yellow petroleum-jelly.

The reduction-test with Zn and HCl is convenient, easily applied, and delicate. It only differs from the official test for sulphurous acid in the substitution of alcoholic HCl for the aqueous solution, the former being more satisfactory in every way. Reduction does not readily take place in the aqueous solution, whilst if stronger acid be used the action becomes violent and unmanageable. Petroleum oil or 1 dr. absolute alcohol  $\frac{1}{2}$  dr. are shaken in a test-tube, and 15 minimis pure HCl added, with a fragment of pure zinc. A strip of paper wetted with subacetate of lead is suspended in the upper part of the tube, spouting being prevented by a plug of cotton-wool. The presence of sulphur compounds is indicated by the paper turning brown or black. The hydrogen evolved in contact with pure oils has a pleasant ethereal odour which the presence of a slight trace of sulphur modifies in a marked degree.

The physical characters of a few typical samples, together with their behaviour towards the litharge and reduction tests, are given in the table on the next page.

From the examination of a large number of samples the following conclusions are arrived at:—

White petroleum oil having a sp. gr. of about .885 can be obtained more free from taste and odour than lighter ones, but it is evident from the above table that the bulk of the white oil found in commerce, much of which is sold as chemically pure, contains a greater or less proportion of sulphur compounds.

White petroleum-jelly is frequently a mixture of cereals and white oil and partakes of the impurities of the latter. Very pale jellies, which are true non-crystalline petroleum residues, generally contain sulphur, probably due to the analogous process of bleaching.

Yellow oils, although generally free from sulphur, are in many cases so tainted with a "paraffine" flavour as to be unfit for internal use.

The yellow petroleum jellies, as far as sulphur is con-

cern, are the purest, samples being now met with which are very pale in colour, contain no sulphur, and are both tasteless and odourless.

In the preparation of white petroleum oil solar oil (which is a stillate having a sp. gr. of about .870) is stated to be redistilled, and, after rejecting the strong-smelling lighter fractions, the remainder of the distillate is thoroughly dried and titrated successively with sulphuric acid and fuming sulphuric acid. This causes evolution of sulphurous acid and loss of temperature. The acid is separated, the last trace removed, with some of the products of its action, by washing with caustic soda followed by water, and

#### White Petroleum Oils.

| No. | s. gr. | Colour      | Odour                    | Taste              | Litharge-test      | Reduction-test  |
|-----|--------|-------------|--------------------------|--------------------|--------------------|-----------------|
| 1   | 65     | Water white | Odourless                | Castor-oil like    | Very deep orange   | Black           |
| 2   | 80     | "           | "                        | Tasteless          | "                  | "               |
| 3   | 85     | "           | Faint odour              | "                  | Pale yellow        | Pale brown      |
| 4   | 85     | "           | Faint odour              | Castor-oil like    | Yellow             | Brown           |
| 5   | 75     | "           | "                        | Nutty taste        | Orange             | Deep brown      |
| 6   | 85     | Faint straw | "                        | Faint disagreeable | Very pale yellow   | Very pale brown |
| 7   | 70     | Water white | "                        | "                  | Orange             | Deep brown      |
| 8   | 65     | Faint straw | "                        | Faint taste        | Orange yellow      | Brown           |
| 9   | 75     | "           | "                        | "                  | Full orange yellow | Deep brown      |
| 10  | 85     | Water white | Odourless                | Tasteless          | "                  | "               |
| 11  | 70     | "           | "                        | "                  | Orange yellow      | Brown           |
| 12  | 85     | "           | "                        | "                  | Very deep orange   | Black           |
| 13  | "      | "           | Faint, agreeable flavour | Colourless         | No coloration      |                 |

#### White Petroleum Jelly.

|    |   |                  |           |                      |               |               |
|----|---|------------------|-----------|----------------------|---------------|---------------|
| 14 | — | White            | Odourless | Faint nauseous taste | Orange        | Brown         |
| 15 | — | "                | "         | Tasteless            | No coloration | No coloration |
| 16 | — | Very pale yellow | "         | "                    | —             | Pale brown    |

#### Yellow Petroleum Oil.

|    |    |             |                  |                  |   |               |
|----|----|-------------|------------------|------------------|---|---------------|
| 17 | 90 | Full yellow | Slight petroleum | Marked petroleum | — | No coloration |
| 18 | 85 | Pale yellow | Very faint       | Tasteless        | — | "             |
| 19 | 70 | "           | Faint agreeable  | "                | — | "             |
| 20 | 90 | Full yellow | Faint            | Marked petroleum | — | "             |

#### Yellow Petroleum Jelly.

|    |   |             |           |           |   |               |
|----|---|-------------|-----------|-----------|---|---------------|
| 21 | — | Full yellow | Odourless | Tasteless | — | No coloration |
| 22 | — | Yellow      | "         | "         | — | "             |
| 23 | — | Pale yellow | "         | "         | — | "             |

purification completed by filtration through animal charcoal, or sometimes by redistillation. I have endeavoured to ascertain, by inquiries made in various quarters, if this represents the process usually adopted, but my impression is that the details of the methods actually in use have not been made public. Some manufacturers say they do not employ sulphuric acid, yet their oils contain sulphur compound. Another process of purification depends entirely on the use of animal charcoal. Petroleum is distilled *in vacuo*,

and the selected fractions filtered through granular animal charcoal in steam-jacketed filters.

Paraffinum liquidum can be obtained from either Russian or American petroleum. There is every reason to believe that most of the commercial oil is derived from the former, as it lends itself more readily to the ordinary process of purification.

Russian petroleum consists chiefly of naphthenes, whilst the American variety is principally composed of hydrocarbons belonging to the methane series; the products of the two thus differ widely in composition. In the few instances in which the origin of the samples in the table could be traced with certainty it was found that those derived from Russian oil contained sulphur compounds, whilst those oils originating in American petroleum were free. This suggests the possibility of the sulphur existing, either partially or entirely, in combination with the hydrocarbons as sulphonates. Crude petroleum contains on an average 5 per cent. of sulphur (sulphides of methyl, ethyl, propyl, and other alcohols). These come over with the lighter fractions, and it is quite certain that the sulphur in white petroleum oil is introduced during the process of bleaching.

If an oil gives but a pale-brown tint when tested with Zn and alcoholic HCl, an excess of hypophosphorous acid will prevent for a long time the development of any sulphuretted odour. When emulsified with hypophosphites, about 3 minimis of hypophosphorous acid to the fluid ounce of oil is sufficient excess to preserve such a mixture for several months, but clearly decomposition is best avoided by the use of a sulphur-free oil or jelly. Many oils are all that can be desired in point of colour, freedom from taste, odour, and fluorescence, the sulphur-compounds alone unfitting them for use in pharmacy; and although most manufacturers maintain that the removal of this impurity presents great practical difficulty, it is to be hoped that the efforts now being made at several works will result in the production of oils really meriting the designation, which they often so unworthily bear, of "chemically pure."

12.42. The author showed the reactions referred to, much to the apparent pleasure of the audience, which had now increased to over one hundred.

#### DISCUSSION.

The PRESIDENT highly complimented Mr. Bird on the thoroughness which he showed in his work.

Professor REMINGTON said that the subject of petro-latum (as they in America called petroleum-jelly) was one which greatly interested him. The jelly was first introduced by a Mr. Howton, of Philadelphia, who gave it the name "Cosmolene," because he believed it would be used the world over, so he took the name from "Cosmos." He had great faith in it. (Laughter.) Later, New York firms looked into the matter, amongst them Chesebrough, who made a similar article and called it vaseline. Howton did not live to see his cosmolene grow famous, but fortunes have been made out of it. When the U.S.P. Committee, recognising its merits, wanted to introduce a similar article into the Pharmacopœia under the name of "Petrolatum," they made inquiries as to how it was prepared, but found it was a secret, but not patented, process; then Mr. Shepherd, of Boston, the Treasurer of the A.P.A., undertook the inquiry. He was one of the old New England stock, a man hard to beat, and he went to the oil-fields of Pennsylvania to see what he could see. Howton and other makers professed that the jelly was simply the still-residues filtered through charcoal. Mr. Shepherd found that they had been buying up the huge oil-tanks at the oil-factories. Why was that? Well, there was a nasty deposit which formed in these tanks and gradually filled them up, so that the tanks became useless and a worry to the manufacturers. That deposit was called B.S. oil—the meaning of which he might tell them after the meeting—(laughter)—and it was the stuff which on filtration through animal charcoal gave them petrolatum. At first it was sold for 2s. per oz., now at 3d. per lb. in the purified state, and he was sure that at that price it could go through no chemical processes. (Applause.)

Mr. STANFORD said he had obtained a fine sample of colourless petroleum oil from Mr. Stewart, manager of the Broxburn Oil Company, who told him that it was Russian. It was tasteless, odourless, and colourless, and had been used in

the Broxburn district as a substitute for cod-liver oil, but the doctors had given it up because they found it was not assimilated.

Dr. ATTIFIED asked Mr. Bird to give a concise statement for the characters which he would give for paraffinum liquidum on the basis of such as those of the German Pharmacopoeia.

Mr. J. C. UMLEY said that he had this matter brought before him in another connection—viz., in regard to the use of petroleum oil for extracting perfumes by the *cultivage* process. Such oils as Mr. Bird described had been used, but it was found at first that the perfumes had a peculiar malodour, and he traced it to the presence of sulphur in the petroleum. That had now been removed, and exceedingly fine perfumes were made which, while having all the utility of floral pomades, did not become rancid or dissolve in the spirit.

Mr. TYRER corroborated the observation that the bad

odour of petroleum emulsions was due to sulphur in the oil, and not to the hypophosphite of the emulsion.

Dr. MCWALTER asked Mr. Bird if he had examined the petroleum as to neutrality. He had observed that certain makes of the jelly caused intense irritation, owing to the oil, and even vaseline became acid on keeping.

Mr. MACEWAN asked if the dye used to counteract the fluorescence of the oils had anything to do with the bad odour?

Mr. SEYLER asked what quantity of sulphur was in the oils?

Mr. BIRD, in reply, spoke appreciatively of Prof. Remond's "Reminiscences," and said as to the characters that the best oil had a specific gravity of .885 to .890. The jellies which he had examined were perfectly neutral. He had noted for nononitronaphthalene, nor did he ascertain the quantity of sulphur present.

The Conference then adjourned for luncheon.

## FOURTH SESSION, WEDNESDAY.

2 to 3:45 P.M.

ON resuming after luncheon, and before an audience which grew from 40 to 120, or thereabouts, a twenty-five minutes' extempore lecture was delivered on

### THE SALIENT FEATURES OF THE SCOTTISH FLORA, By G. C. Druce, M.A., F.L.S.

The lecturer said he had been asked to say something about Scotch flora, and had to apologise for bringing this subject before an audience like that. It had nothing to do with the pharmaceutical curriculum in any sense or form. The small amount of systematic botany in the curriculum was growing smaller by degrees, and he was afraid that in a short time it would be eliminated altogether from the course. Then for a Southron coming from the Midland Counties attempting to speak to a Scotch audience on Scottish flora seemed to be rather impudent. His only excuse was that since a boy of 16 he had taken a deep interest in this department of scientific research. It would be impossible for him to give them any idea of what Scottish flora really was. He could only glance at a few of the principal things. Altogether our British flora represented 1,800 species. Of that number between 60 and 70 were in the true sense confined to Scotland. That did not seem a large number, but still they were extremely interesting species. They were confined and not spread out over Scotland. A tourist coming up to Scotland, and following the ordinary tourist routes, might not see one of those plants. It was only those who went outside the track of ordinary visitors, and went up to the mountain country, for they were essentially mountain plants. Of the Calycanthaceæ only one species was peculiar to Scotland. In the Cruciferae, again, there were only two species which were confined to Scotland. Then coming to the Caryophyllaceæ we found six or seven confined to Scotland. Of the Leguminosæ three or four species were confined to Scotland only. Then of the Rosaceæ we had only two or three species in Scotland—one in the Isle of Arran, the *Pyrus scandens*. Coming to the Umbelliferae and the great order of Ericaceæ, four or five species were found in Scotland only. In the *Arctostaphylos alpina* we had four or five plants which were exclusive to Scotland. One was the beautiful blue heath—one of the treasures which every British botanist liked to get. Then another herbaceous plant which did not look like a heath. It was one of the *Pyrus* of winter growth, and scattered over four or five localities, extending up to Ross-shire. In the woods near Scone, where the coronation-stone of England—(cries of "Britain" and laughter)—came from—but this stone was not Scottish after all; he believed it originally came from Ireland—(laughter)—but be that as it might, he was fortunate in discovering the lovely little white *Monesis grandiflora* in the woods at Scone. Then coming down the list to the Scottish herbaceous order, there were two related to Scotland; they found some species of the willow, four species of which do not extend southwards

In the beautiful lilaceous order we had only one peculiar to Scotland—Solomon's seal—the root of which used to be in their shops as a remedy against those accidents which sometimes happened in the best regulated families. (Laughter.) Then they found eight or nine sedges on the shoulders of the mountains, from 200 to 400 feet above sea-level, flourishing among the heather and bracken. Then there was another sedge recently found in Argyllshire. In the grasses there were five or six which were peculiar to Scotland, and one—the oly-grass—was extremely interesting and very beautiful. It was said to be discovered about the beginning of this century in Forfarshire by Don. Hooker spoke of Don as an impostor, and spoke of this plant as one of Don's noted discoveries. Robert Dick, the Scottish naturalist, found it on the bank of the Thurso river, and Mr. Druce said he was proud to possess a specimen discovered by Dick himself. There were four general localities where those rare Scottish plants flourished. The first district was Western Ross-shire and Southern Sutherlandshire. It was mostly Alpine species that flourished in this district, those being of a kind that were not to be found elsewhere southwards. Another prolific district for these peculiarly Scottish plants was on the Grampian range and Perthshire, and the Brechin-bane country was a favourite spot. On Ben Lawers there were at least thirty of the sixty-five species of plants peculiarly Scottish. Ben Lawers was the only place in Great Britain where the *Saxifraga cernua* flowers, and that but very rarely. Despite the depredations of those people who climb the mountain to carry it away, it still held its own. The author believed that he was on the eve of making an addition to the list of British flora with a plant recently discovered on Ben Lawers, and it was principally in connection with this matter that he was now in Scotland. (Applause.)

On the motion of the PRESIDENT Mr. Druce was accorded a vote of thanks for his interesting lecture.

Mr. SEYLER's paper was the next one read, which did himself, in fourteen minutes. It is subjoined:—

### THE STRENGTH OF COMMERCIAL SAMPLES ALKALOIDAL TINCTURES.

By Clarence A. Seyler, B.Sc., F.I.C.

A number of samples of alkaloidal tinctures have been submitted to the author, as analyst for the Glasgow County Council. He reported in this paper the results of his examination of tinctures of *nux vomica*, *bella donna*, *hyoscyamus*, *aconite*, *cinchona*, and *opium*. The solids were determined by drying 5 c.c. upon coarsely-powdered lime in a flat nickel dish, and heated in a current of air in a Soxhlet's drying-oven at a few degrees over 100° C. Specific gravity was taken by the pionometer. Total alkaloids were determined gravimetrically by Farr and Wight's methods.

The method of procedure was as follows:—

A. Evaporate 10 to 100 c.c. tincture to drive off a hole;

make up volume with water; cool; add 1 c.c. semi-normal acid and filter through cotton-wool into separator. Shake with 10 + 5 + 5 c.c. chloroform till this is colourless. Separate.

B Purified acid tincture. Add 2 c.c. liquor. ammon. B.P. and shake with 10 + 5 + 5 c.c. chloroform till this, on evaporation, gives no precipitate with Mayer's reagent. Separate.

C Crude coloured chloroform. Wash with 3 portions of acidified water (20 c.c. water and 2 c.c. semi-normal acid). Separate. Add washing to B.

D Washed coloured chloroform. Reject.

E Crude alkaloid. Shake with 3 portions of acidified water as in C. Separate.

F Residual tincture. Reject.

G Alkaloidal salt solution. Add 2 c.c. liquor. ammon., and shake with 10 + 5 + 5 c.c. chloroform, as in B.

H Chloroform, on evaporation, must give no precipitate with Mayer's reagent. Reject.

K Pure alkaloid. Evaporate, weigh, and titrate.

L Alkaline residue. Reject.

M Seyler stated that in the cases of tincture of nux vomica and quinine-wine the complete extraction of the alkaloid was found difficult. Violent agitation with chloroform seemed necessary, and then there was a risk of the formation of an obstinate emulsion. He found that the

emulsion could be best separated by using the method suggested by Platt to an American society. For this purpose the apparatus figured was found very practical. The emulsion is filtered through a layer of cotton-wool (2-4 cm.). The filter is a piece of combustion-tubing drawn out into a long tube about the thickness of a knitting-needle. By means of a pump the emulsion is gently sucked through the filter, and separates into two clear layers, the lower of which (chloroform) can be tapped off. This apparatus is also convenient for filtering in titrations with Mayer's reagent, glass-wool and a thin layer of asbestos being substituted for the cotton-wool.

In the case of tincture of opium the author said he preferred the process of Teschemacher and Smith as modified

by it to the B.P. method or any modification of it. He expedites the precautions he took to collect the morphine and free it from narcotine. In several cases he found the indicators in titrating the residual alkaloids not quite sharp.

The results of his experiments were shown in a series of tables, the proportions being in all instances percentages.

Tincture of *Nux Vomica*, which should contain 0.229 parts of alkaloids, yielded in seven samples 0.226, 0.216, 0.202, 0.20, 0.196, 0.193, and 0.114 respectively.

Tincture of *Belladonna*, which Farr and Wright suggest should yield 0.025 part of alkaloids, was found in five cases to yield 0.028, 0.023, 0.019, 0.014, and 0.014 respectively. In one of these tinctures proceedings were taken because the alcoholic strength was 30 under proof. The author thought it likely that the low alkaloidal strength might be due to the use of foreign leaves.

Tincture of *Hyoscyamus*, for which Farr and Wright suggest an alkaloidal proportion of 0.10, was tested in four instances, and yielded 0.03, 0.11, 0.13, and 0.14.

Tincture of *Aconite* should contain about 0.050 part of alkaloids, was in three instances above that strength—namely, 0.062, 0.060, and 0.052. Three others were near the proper strength—namely, 0.050, 0.045, and 0.044. Then followed three weak ones—0.036, 0.026, and 0.025—and one very weak—namely, 0.012. In the absence of any reliable method for estimating the aconitine separately, the total alkaloids were determined.

Tincture of *Cinchona*.—The compound tincture, if the bark is completely extracted, should contain 0.5 per cent. of alkaloids; the simple tincture, 1 per cent. Allowing for imperfect extraction, 0.4 and 0.75 per cent. respectively would be fair proportions to expect. In ten samples of the compound tincture the alkaloids were in the proportions of 0.742, 0.37, 0.34, 0.34, 0.33, 0.32, 0.30, 0.20, and 0.18. Three

samples of simple tincture yielded 0.58, 0.42, and 0.18 respectively.

Tincture of *Opium*, if prepared according to the B.P. directions and completely extracted, should contain 75 per cent. of morphine. In practice, however, only 5 to 6 per cent. is obtained when the directions of the B.P. are followed. Eleven samples were tested, and only three were within the limits which might be expected from carefully following the B.P. directions. These yielded 0.649, 0.664, and 0.736 per cent. of morphine. The remaining samples were much stronger in morphine. They were found to contain 0.844, 0.851, 0.855, 0.872, 0.872, 0.906, 0.933, and 1.120. Mr. Seyler's tables gave also the specific gravities of each sample tested, and the solids found.

The PRESIDENT thanked the author, but by this time the members were not in a mood for discussion, and the rest of the papers were taken with compliments only, the HONORARY SECRETARIES reading them by turns. They are subjoined.

#### PHOSPHATES AND PLATINUM.

By W. G. Stratton.

The author, some time ago, while igniting a mixture of ammonium phosphate and Rochelle salts on platinum wire before the blow-pipe, was surprised to see the platinum fuse and become quite friable. Shortly afterwards he mentioned the occurrence to a scientific friend, who informed him that he had had a somewhat similar experience, having heated charcoal, which contained a phosphate as an impurity, in an platinum crucible, with disastrous results to the precious metal.

As this action seems little known, it was thought advisable to draw attention to the matter.

Granger (*Compt. Rend.*, 1896, 123, 1284-5) has shown that when platinum is heated in phosphorous vapour, in a current of carbonic anhydride, at a high temperature, action takes place, the product being a phosphide of platinum. The physical appearance of this body, as there described, accords closely with that of the author's experiment.

Assuming that the phosphate was reduced by the carbon of the tartrate with the liberation of phosphorus, all the conditions for the production of platinum phosphide would be present.

The author regrets that owing to the lack of time he has been unable to follow the subject further, and contributes this short note in the hope that it may be the means of saving expensive apparatus from destruction.

#### LIQUOR BISMUTHI ET AMMONII CITRATIS.

A Report on the Composition of some Commercial Samples.

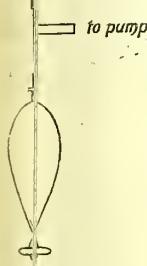
By W. G. Stratton.

This research was undertaken at the suggestion of the editor of THE CHEMIST AND DRUGGIST in order to determine whether a variation in the composition of commercial liquor. bismuthi was the cause of the varying results said to have been sometimes obtained when that preparation was dispensed with an alkaline bicarbonate.

Eleven samples were examined: Nos. 1 to 7 were those mentioned in a communication to THE CHEMIST AND DRUGGIST (vol. 50, page 597). The pharmacist who supplied No. 3 having stated its source, application was made to the manufacturers, and from them No. 8 was obtained. Nos. 9 and 10 were obtained from a Midland pharmacist. No. 11 is liquor. bismuthi, Schacht.

The specific gravities were taken with a Sprengel's tube. The bismuth was determined as follows:—A known volume of the liquid was acidulated with acetic acid, and the bismuth precipitated with sulphuretted hydrogen. The bismuthic sulphide was collected on a filter, washed, and digested in solution of sodium sulphite. It was then collected on counterpoised filter-papers, again washed, and dried in a water-oven at 98° C., weighings being made at intervals until the weight began to increase. The ammonia was determined by adding excess of sodium hydrate to a known volume of the liquor contained in a distilling-flask, and distilling into a known volume of standard solution of sulphuric acid. The excess of acid was titrated with standard solution of potash and the amount neutralised by the

— to pump.



ammonia thus obtained. The citric radical was determined as follows:—The bismuth was precipitated from a known volume of the liquor as sulphide. The precipitated sulphide was filtered off and well washed, the washings being collected and added to the filtrate. The mixture was boiled until free from sulphurated hydrogen. Excess of standard solution of sodium hydrate was then added, and the liquid again boiled until free from ammonia. The excess of sodium hydrate was next determined, and, being deducted from the quantity originally added, the amount which had combined with the citric radical was obtained.

From the data afforded by these processes the percentages of bismuth, ammonia, and the citric radical were respectively calculated. None of the samples was neutral to litmus, but the divergence from neutrality in each case was extremely small. Alcohol was noticed to be present in several instances. The nitric radical occurred in six samples, the quantity present in Nos. 3, 8, and 10 being fairly large.

The following table gives the results obtained, the theoretical quantities of bismuth and the citric radical being placed at the head of their respective columns. In all cases the figures are the mean of two or more experiments:—

| Number      | Sp. gr. | Per cent.<br>Bi | Per cent.<br>NH <sub>3</sub> | Per cent.<br>C <sub>6</sub> H <sub>5</sub> O <sub>7</sub> | Impurities |
|-------------|---------|-----------------|------------------------------|-----------------------------------------------------------|------------|
| Theoretical | 1.07    | 4.375           |                              | 3.256                                                     | —          |
| 1           | 1.070   | 4.377           | 1.048                        | 3.910                                                     | Nitrates   |
| 2           | 1.063   | 4.167           | .927                         | 3.427                                                     | —          |
| 3           | 1.135   | 4.476           | 3.535                        | 14.205*                                                   | Nitrates   |
| 4           | 1.070   | 4.748           | .746                         | 3.647                                                     | —          |
| 5           | 1.073   | 4.585           | .807                         | 4.169                                                     | —          |
| 6           | 1.073   | 4.548           | .871                         | 3.817                                                     | —          |
| 7           | 1.072   | 4.285           | .991                         | 4.232                                                     | Nitrates   |
| 8           | 1.150   | 5.552           | 3.777                        | 14.736*                                                   | —          |
| 9           | 1.070   | 2.968           | 2.034                        | 6.182                                                     | —          |
| 10          | 1.122   | 5.164           | 3.200                        | 11.426*                                                   | —          |
| 11          | 1.029   | 1.944           | .686                         | 2.663                                                     | —          |

It will be seen from these figures that some makers improve on the B.P. preparation by adding an excess of citrate of ammonium. The influence of this salt in preventing the precipitation of bismuth carbonate being so well known, it seems almost unnecessary to say that samples Nos. 3, 8, 9, 10, and 11 would, if dispensed in combination with a bicarbonate, yield mixtures of very different appearance to those in the preparation of which the other samples were used.

In conclusion, it may be interesting to note that in sample No. 1—the bismuth and citric-acid figures of which correspond almost within the limits of experimental error with the theoretical quantities—the figures for ammonia closely approach those required by the formula  $(\text{NH}_3)_2 \text{Bi C}_6\text{H}_5\text{O}_7$ . My thanks are due to Mr. E. H. Farr, F.C.S., Uckfield, in whose laboratory the experiments were carried out.

#### DISINFECTANT SOAPS.

By S. Rideal, D.Sc., Lond., F.I.C.

This was a very lengthy paper, which recorded a great amount of work. Dr. Rideal gave the bacteriological results of a great many experiments, but the most important of his observations is summed up in the following table:—

| Organism           | Time required to kill the Organism  |                                      |                                       |                            |                            |  |
|--------------------|-------------------------------------|--------------------------------------|---------------------------------------|----------------------------|----------------------------|--|
|                    | Carbolic<br>Soap 3 lbs.<br>per ewt. | Clove Oil<br>Soap 3 lbs.<br>per ewt. | Clove Oil<br>Soap 75 lbs.<br>per ewt. | Biniodide<br>Soap<br>0.5 % | Biniodide<br>Soap<br>1.0 % |  |
| B. coli communis   | between 2 and 4 hours               | 2 alive after 6 hours                | between 2 and 4 hours                 | less than 15 mins.         | less than 15 mins.         |  |
| S. pyogenes aureus | Organism alive after 6 hours        |                                      |                                       | between 15 and 20 minutes  | under 15 minutes           |  |

The carbolic and the two clove-oil soaps have therefore an antiseptic action equal to but not exceeding ordinary eur.

\* Owing to the presence of considerable traces of nitrates in these samples the figures for the citric radical represent a somewhat larger amount than was actually present.

soap. In the case of *S. pyogenes* the limit of time required to produce disinfection was not reached, but both the strength and the time much exceeded those which in practice, it was not considered necessary to prolong the experiments. The time had also much exceeded that required by the biniodide.

#### OUR PRESENT KNOWLEDGE OF THE MYDRIATIC GROUP.

By Gordon Sharp, M.D. Edin.

Our knowledge of atropine, hyoscyamine, scopolamine, hyoscine, and other bodies which dilate the pupil, is perfect. From time to time we have additions to the mydriatics, each supposed to possess some slight advantage over its predecessors, but time and trial often prove that the new base differs little, if any, from atropine. A definite formula is given to each of these agents only to be amended the next few months, and perhaps further corrected. The tendency appears to be to an extension of the list than to an increase of our knowledge of the existing members of the class. Such a state of things is far from satisfactory to the chemist, and certainly highly unsatisfactory to the pharmacologist, who nowadays depends so much on the worker. If we are to make advances in practical therapeutics, the chemist and the pharmacologist must work hand in hand, for to-day everyone must believe in the relationship between chemical constitution and physiological action. If, then, the chemist's work be inaccurate the pharmacologist's results cannot be trustworthy. Two years ago I communicated a paper to the British Medical Association on "The Atropine Group." In this paper I criticised the members of the group, giving details of some work had done on the pharmacology and therapeutics. Here not the proper place to enter into discussions on therapeutic points; but I may be permitted to say I employed hyosine, atropine, daturine, duboisine, and scopolamine as ordinarily supplied to us, and I was unable to distinguish between them either pharmacologically or therapeutically.

#### Duboisine.

In 1878 Baneroff, of Brisbane, discovered that an Australian plant possessed mydriatic properties. The drug was investigated in this country by Holmes, Gerrard, Ezer, Tweedy, and Murrell, and the belief prevailed that although the active agent in many ways resembled atropine, yet was distinguished by important chemical and pharmacological differences. But in 1880 Ladenburg found duboisine and hyoscyamine to be identical. In 1886 Laer reported that the leaves and twigs of the young *Datura myopoides* contain scopolamine, and those of the old plant hyoscyamine. Thus it almost appears beyond dispute there is no such alkaloid as duboisine, and yet we find it figure in text-books and drug-lists. This is unfortunate, for so long as manufacturers offer, doctors will buy and use. I am afraid doctors are in the power of the pharmacist to a greater extent than they care to admit. The sample of duboisine (so called) which I have obtained are not white, but have a brownish tint, and are thus most likely not pure. This may account for the varying results obtained by therapeutists. An impure alkaloid may contain an admixture of piturine, the presence of which would modify the action.

#### Daturine

is still supplied as if it were a distinct alkaloid. In 1878 Pereira stated that in most of its properties it agreed with hyoscyamine; but Planta was the first to assert the identity of daturine and atropine. In 1877, or 1878, Poehl said they were not quite identical chemically. In 1880 Ladenburg's research led him to look upon daturine, duboisine, and hyoscyamine as identical, and he further drew the conclusions that there were only two individual mydriatic bases, namely, atropine and hyoscyamine. Whilst conducting these researches Ladenburg made the discovery that he could convert hyoscyamine into atropine. Working during the same period, E. Schmidt found daturine and atropine to be in every respect identical, but, as I have just now stated, Ladenburg found duboisine, daturine, and hyoscyamine identical. If this be so, then hyoscyamine and atropine are identical. Now a difficulty is introduced, for in 1881 Ladenburg had somewhat shifted his ground, and stated his belief in three individual mydriatic bases instead of two, the three

be atropine, hyoscyamine, and hyoscine. He reasserts his opinion that duboisine and hyoscyamine are identical, but adds that daturine is a mixture of atropine and hyoscyamine. In 1882 Pesci, an Italian observer, entered the field of confusion, and gave his opinion that daturine was not identical with hyoscyamine, as Ladenburg had said, nor was it identical with atropine, as E. Schmidt had asserted. This was adding confusion to confusion. Things remained in this unsatisfactory condition till 1885, when E. Schmidt not only made investigations of his own, but ably reviewed the whole question. He said he had met with crystalline bases under the two names, atropine and daturine, and on examination had found them identical. Crude daturine is nearly all atropine, but not quite, and so here is the cause of discrepancies of statement. In the same paper he, like Ladenburg, regarded duboisine as not a distinct base, and came to Lanburg's conclusion that we have only two mydriatic bases—namely, atropine and hyoscyamine—leaving for the present hyoscine out of the question. Taking all things together, then, I think we are justified in asking that the term "daturine" be removed from text-books and commercial lists.

#### Hyoscyamine.

Is there such a base, or is it only another name for atropine? Or is atropine only a conversion-product of hyoscyamine? Is there only one fundamental mydriatic base? The following arguments lend some support to the affirmative side of this last question:—

The pharmacological action of atropine and hyoscyamine is often indistinguishable.

Salts named by one chemist as atropine and employed as such, and giving the ordinary chemical and pharmacological actions of atropine have, on examination by another chemist, been said to be in reality hyoscyamine.

Daturine is identical with atropine, not with hyoscyamine, and yet Ladenburg found the gold salt of hyoscyamine and daturine identical, and E. Schmidt found the gold salt of daturine and atropine identical; but the gold salts of hyoscyamine and atropine are supposed to differ in their properties.

It is not the source of the base, but rather the manner of manufacture which determines whether the product is hyoscyamine or atropine.

Hyoscyamine and atropine are not identical they are closely related, and so close is the relationship that it is often beyond the ability of the chemist and the pharmacologist to detect the differences. We need more workers in the field.

#### Hyoscine.

Perhaps pure hyoscine is a conversion-product of atropine or hyoscyamine, but many of the specimens found in commerce are largely made up of atropine, so far as we can judge from their therapeutic action. Hyoscine can be prepared from daturine. Now, daturine and atropine are asserted to be identical. May there not then be two stages in the conversion of hyoscyamine? (1) The hyoscyamine converted into atropine. (2) The atropine into hyoscine. This is only a supposition, but it may explain why so many specimens of hyoscine (so called) supplied to medical men give the atropine-like action. The actual formula is a question of dispute among authorities, Ladenburg giving it as  $C_{17}H_{23}NO_3$ , O. esse as  $C_{17}H_{21}NO_4$ .

#### Scopolamine.

Tracing the history of scopolamine one notes the same authorities, contradictions, and complexities as we have formerly encountered. There has followed a slow return to simplicity. In this, as in everything else human, complexity and little knowledge, simplicity and more knowledge, go hand in hand. In 1888 or 1889 the prevailing view was to regard the alkaloids of Japanese helladonna [*Scopolia atropos*.—ED. C. & D.] and the Austrian mydriatic plant [*Scolia carnatica*.—ED. C. & D.] as a mixture of hyoscyamine, atropine, and hyoscine. In 1892 the chief base of the Austrian plant was named scopolamine by E. Schmidt. No began the battle. O. Hesse said Schmidt's base was no more or less than hyoscine.

At this stage of the chemical history the pharmacologist seized upon scopolamine, and after more or less experiment the new base was declared to be superior to atropine in not

causing dryness of the throat, congestion of the head, or acceleration of the heart's action. Extended experiment has not confirmed this view. Later investigation leads O. Hesse to modify his views, and he comes to regard scopolamine as not merely hyoscine, as he at one time supposed, but as a mixture of hyoscine and a base which he calls atroscine. About the same time E. Schmidt holds the opinion that there is a base scopolamine, and he further makes the startling assertion that the commercial samples of hyoscine are not hyoscine at all, but in reality this new base scopolamine. He proceeds to tell us that the properties of scopolamine differ according to the methods of preparation, and this may serve to explain why observers obtain varying results with the salts supplied to them. Hesse, after further work, is equally confident of the accuracy of his assertions, and says the so-called scopolamine consists largely of hyoscine. Moreover, he suggests the name "scopolamine" should be discontinued. In this I feel inclined to agree with him.

After all, this so-called scopolamine may be nothing more or less than an impure atropine or hyoscyamine. (Compare Lauterer under the heading "Duboisine.") Considered purely from the pharmacological and therapeutical standpoints, scopolamine has, in my hands, given the typical atropine action.

To gather up the ends of our statement, and to make something after the form of a summary, we find as follows:—

(1) The names daturine and duboisine should be given up.

(2) The relationship of atropine and hyoscyamine can hardly be said to be clearly understood. If this point were cleared up much would be gained, and the way paved for further investigation of the other members of the group.

(3) Of hyoscine one can say little. It is like atropine in its action.

(4) Scopolamine cannot lay claim to be a new base.

#### THE PRESENT OF BOOKS.

The PRESIDENT presented the local Association with the following books, purchased from the Bell and Hill's fund:—Tyndall's "Fragments of Science" (2 vols.), Tyndall's "Floating Matters of the Air," Tyndall's "New Fragments," Green's "Manual of Botany" (2 vols.), Atkinson's "Elementary Physics," Sutton's "Volumetric Analysis," Helbing's "Modern Materia Medica," Attfield's "Chemistry," and "Taylor on Poisons"; also "Pharmacographia" and "Science Papers," presented by Mr. Thomas Hanbury, in memory of Daniel Hanbury, F.R.S., F.L.S.

Mr. CURRIE briefly acknowledged the gift, promising that the local chemists would make good use of the books. He hoped that the members of the Conference had spent a pleasant time, and that it would yet be pleasanter. They knew that the motto of Glasgow was, "Let Glasgow flourish by the preaching of the Word," and that they had done in the Conference sessions. (Laughter.)

#### THE FORMULARY COMMITTEE

was again reappointed on the motion of Messrs. Umney and Coull.

#### NEXT YEAR'S VISIT TO BELFAST.

The Conference then took up the invitation from Belfast to hold the annual meeting in that city next year. In support of the invitation Mr. McKnight, of Belfast, stated that at a meeting of the Pharmaceutical Society in Belfast, it was unanimously decided to give the Conference a hearty invitation, and Sir James Haslett, M.P., Mr. Payne, Mr. Gibson, and himself were deputed to lay the invitation before the Conference at Glasgow. Sir James Haslett was unable to come, and Mr. Payne was ill at home. He was sure that the cause of his absence would be regretted by the members, because Mr. Payne had been a member of the Conference for a great many years. It had, therefore, fallen upon himself to lay the invitation before them. It came from the chemists and druggists of Ulster. Last year when he brought this matter up at the Conference he was ruled out of order, but he supposed the assertion was true that Irishmen, as a rule, always got two chances. He thought they would agree with him that he was in order this year. They could not offer the Conference many inducements to go to Ulster; they would just give them a hearty Irish welcome. He need hardly remind Scotsmen that the people of Ulster and the

people of Scotland were bound by family ties, and Ulstermen were as much Scotsmen as Scotsmen themselves were. (Laughter.) To those who knew nothing or little about the trade of Belfast he might tell them that they would see in that city two important industries, the shipbuilding trade and the linen trade. The ships sent out from the yard of Messrs. Harland & Wolff and other great yards in the City of Belfast would compare favourably with anything on the Clyde. And Belfast linen was worn in every country in the world. (Laughter.) He could assure the Conference of a very hearty welcome to Irish soil if it decided to accept the invitation which he had the honour to lay before it.

Mr. SAMUEL GIBSON, in support of the invitation, said he appeared there as the delegate of the Chemists' and Druggists' Society of Ireland to bid the Conference hearty welcome to their city next year. He regretted that the President of their Association, Mr. Symes, was unable to appear in person to-day, but he had asked him to read the following letter:—"I very much regret my inability to accompany you to Glasgow, as I am obliged to attend a Coroners' meeting here on Tuesday and Wednesday. May I ask you to press as strongly as possible the opinion of our united bodies that the members of the British Pharmaceutical Conference should visit Belfast next year. We will do our utmost to make their visit pleasant." (Applause.) Continuing, Mr. Gibson said that coming here, and seeing the efforts which their Glasgow friends had put forth to make the visit of the Conference pleasant and profitable, he felt that a very difficult task lay before them in Belfast. But, as Mr. McKnight had told them, there was a little Scotch blood in nearly all their veins, and with that they had united a little Irish recklessness. They could never attempt to do as well as their Glasgow friends had done, but they would do their best. They would promise them that. Of course in going over to Ireland they would have to cross the stormy waters of the Irish Sea, but when they got over that they would do their utmost to make the visit of the Conference profitable and pleasant. It was natural that having visited the commercial capital of Scotland they should go to see something of the commercial capital of Ireland. Of course they had not an ancient city like Glasgow to show them, and they had not the beautiful surrounding scenery that they had on the Clyde, but they would show them a busy hive of industry, teeming with mills and factories. He concluded by assuring them of a very hearty Irish welcome.

Mr. WELLS stated that, as President of the Pharmaceutical Society of Ireland, it was right that he should add a word to the very hearty invitation the Conference had just received. When they met in Ireland some nineteen years ago it was on the invitation of the pharmacists of the whole of Ireland, but on this occasion their Ulster friends were determined that they would have the whole honour and glory of the reception. (Laughter.) While those in the capital did not make any objection, of course their Belfast friends would have the advantage of them. He hoped it would not be very long before he himself, or some other pharmaceutical friend from Dublin, would have the honour of giving them a hearty invitation to visit them in Dublin again. He claimed also, as the head of the Pharmaceutical Society, to speak for the whole of Ireland on this occasion. Mr. McKnight had referred to the bond that tied Glasgow and Belfast, and, indeed, Belfast was always looked upon in Ireland as a little bit of Scotland. He also had the privilege of a little bond in that way in Belfast, because, he explained, his wife was a Belfast lady, and he also could support this invitation. He knew that the Belfast people would give the Conference a very hearty welcome. Mr. Wells further alluded to the importance of Belfast as a ship-building centre, and remarked that perhaps by-and-by the Ulster city would beat the Clyde in that industry.

Mr. ATKINS said that it was with extreme pleasure he rose to move that the Conference at once accept the hearty invitation from Ireland. He was quite sure Ulster would do its duty and rise to the occasion. They knew by report—at least, he knew by report—what a magnificent city it was, and they knew its wonderful industries. He had read that it had scenery even surpassing the description given by the modest gentleman who had sounded its praises. They only asked one thing, and that was that when they

got there they would not need any ulsters. (Laughter.) If their Irish friends would only arrange for sunshine he was quite sure all the other things would follow. It was two years since the Conference was in Ireland last. He at once, on behalf of the Conference, heartily accepted this invitation which had been so cordially extended to us. (Applause.)

Mr. TYRER seconded the motion, saying that he knew Belfast well, and in no place had he been so well treated, although everywhere he had been well treated. He had been in the Ulster capital, and he knew they would be well treated.

The PRESIDENT said they had been treated with courtesy everywhere they had visited, and he was quite sure they would have the same warm-hearted enthusiasm at Belfast which those who had visited Dublin had enjoyed. (Applause.)

The motion was then agreed to unanimously.

#### ELECTION OF OFFICERS.

The committee recommended the following appointments, which were agreed to with acclamation:—

##### President

Charles Symes, Ph.D., Liverpool

##### Vice-Presidents

Walter Hills, F.C.S., London | J. C. C. Payne, J.P., Belfast  
J. Laidlaw Ewing, Edinburgh | W. F. Wells, Dublin

##### Treasurer

John Moss, F.I.C., F.C.S., London

##### Hon. General Secretaries

W. A. H. Naylor, F.I.C., F.C.S., | F. Ransom, F.C.S., Hitchin  
London

##### Hon. Local Secretary

R. W. McKnight

##### Assistant Secretary

J. C. Nightingale

##### Other Members of the Executive Committee

|                       |                              |
|-----------------------|------------------------------|
| F. C. J. Bird, London | Prof. Greenish, London       |
| H. Collier, London    | J. C. Umney, F.C.S., London  |
| E. H. Farr, Uckfield  | J. Anderson Russell, Glasgow |
| James Gulier, Belfast | Edmund White, B.Sc., London  |

R. Wright, F.C.S., Buxton

##### Auditors

W. L. Currie, Glasgow, and D. W. Elliot, Belfast

##### Editor of the Year-Book

Louis Siebold, F.I.C., F.C.S.

##### 1899.

Mr. SAVAGE, of Brighton, wished to remind the Conference that there was a place called Brighton, and asked the members to hold themselves free to visit it in 1899. He pointed out the advantages that the town had, and said that they would give a most hearty welcome next year they agreed to this proposal.

The PRESIDENT remarked that at that meeting they could not accept an invitation so far ahead, but he would only tell Mr. Savage, as their Belfast friends had been told Liverpool, "All things come to those who wait."

##### THANKS.

On the motion of Mr. WELLS, seconded by Mr. BIRD, Lord Provost, Magistrates, and Town Council were thanked for the use of the Corporation Art Galleries on Monday.

Dr. ATTFIELD moved that the heartiest thanks of the non-resident members be given to the Local Committee Mr. McAdam, Chairman; Mr. Currie, the Vice-President; Mr. John Walker, the Treasurer; and Mr. Russell, Secretary—for their very successful efforts in carrying out the arrangements for the meeting. He alluded to the heavy labours of the committee, and said the members of the Conference had appreciated all the efforts that had been made to render this meeting a success—for that it was success would be admitted by every lady and gentleman present. (Applause.) For many months past the Local Committee had been at work, and whether they took

arrangements for the scientific work in that room or the social arrangements that had been made for their comfort and pleasure elsewhere, he was sure they would all agree that these arrangements had been excellently carried out, and moved that they give their best thanks to the gentlemen who had promoted their happiness during this visit.

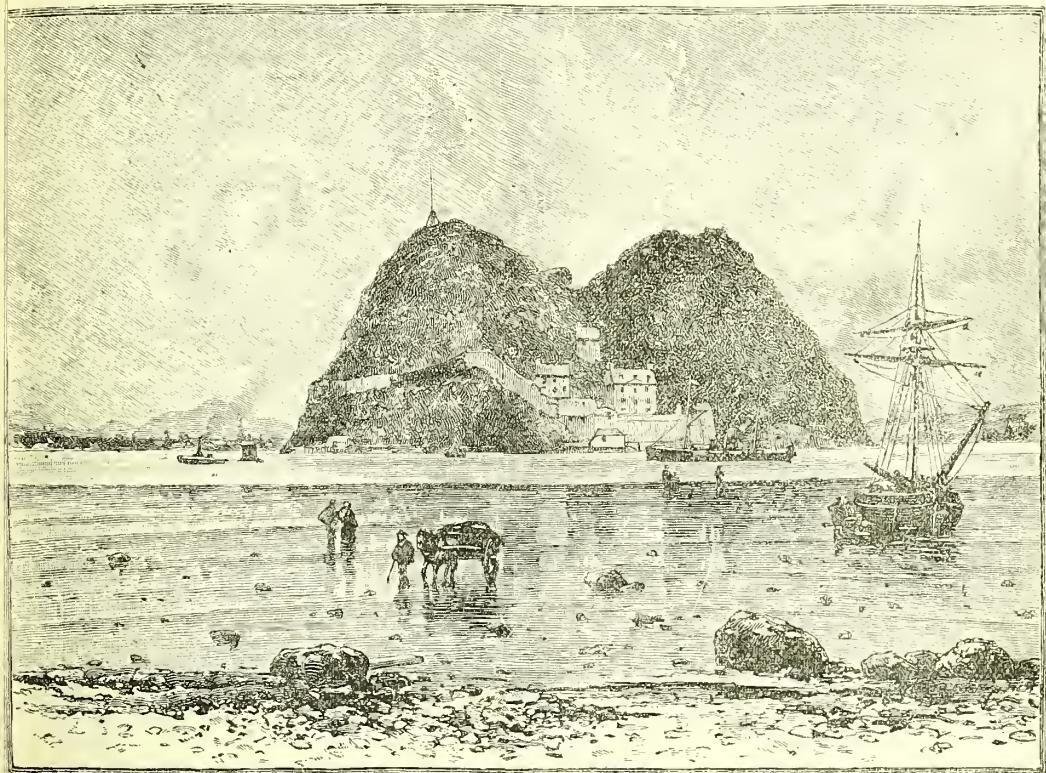
Mr. H. MARTIN, in seconding the motion, said he knew the work that a Local Committee had to do, and he felt that the debt of gratitude that they owed their Glasgow friends could not be put into words. Everything had been made smooth for the visitors. They had got all that they required at the minimum of trouble and the maximum of comfort; but he regretted that there was one thing that they could not control—viz., the water-supply, and he hoped that would be better to-morrow. (Laughter.)

The motion was then put and carried with acclamation and cheers.

Mr. R. MCADAM, in acknowledging the vote, said that seeing they were satisfied with the arrangements made

Mr. J. A. RUSSELL said that of all the jobs he had done in connection with the Conference this was the most delicate he had come across. It was even more delicate than his meeting with the ladies, who had said some very nice things to him. The work had not been so very arduous, as he had been led to expect, and in regard to this he spoke for the whole committee. He was sure that it was not likely that another twenty-one years would elapse before they had another meeting in Glasgow, and he assured them that there would not be the slightest difficulty in getting gentlemen to take up the work.

Mr. JOHN WALKER, the Treasurer, who was also called upon, remarked that all he could say was almost ditto ditto to what had fallen from the previous speakers. After the Liverpool meeting a prominent Liverpool druggist had said to him, "You will not beat Glasgow." (Laughter.) He would not say that they had attempted to beat Liverpool, but they had, at least, endeavoured to be equal to it. They had made no promise as to what they would give their English visitors, but they knew what Scotland used to give



DUMBARTON CASTLE.

for their enjoyment, he felt that the committee were rewarded, and he hoped that Thursday would be a good day. He conscientiously could say that Glasgow pharmacists would be glad to see the Conference in Glasgow again before many years.

Mr. J. L. CURRIE, also being called upon, said that when he visited Liverpool last year and extended the invitation to Glasgow he had made some very large statements. He said that they were to visit the second city of the empire—(laughter)—and he did not retract one bit from that. (Renewed laughter.) It was a pity that the elements had not favoured them, but he hoped that the waterworks would be turned off to-morrow, and that they would have a fine day down the Firth of Clyde. The committee had wrought as one man in this matter. At the same time, of course, he knew that there was no one at the head, but if it had not been for the way that they had been supported by the rank and file, it would have been a very hard work indeed. On behalf of the local committee, he begged to acknowledge the vote of thanks.

Englishmen in the days of old. (Laughter.) Mr. Walker then cordially thanked the Conference for their vote of appreciation.

Mr. WALTER HILLS, in moving a vote of thanks to Dr. Symes for the ability and courtesy shown by him in conducting the meeting, said that of the many factors that went to make the success of meetings of the kind, after all very much depended on the character of the President and his conduct in the chair. He had known Dr. Symes for a long time, and thoroughly appreciated his worth. He felt sure that the present vote was well deserved.

Mr. DRUCE, in seconding the motion, remarked that a great deal had been said about the Scotch weather, but he could tell them from long experience that the oftener one came to Scotland the greater was the variety of it they got. Although there were two opinions in regard to Scotch whisky—one in the night and the other in the morning—there were no two opinions about the ability of their President, and everyone there, he felt sure, endorsed the proposition.

Mr. HILLS then put it to the meeting, and asked that it should be carried with three Kentish cheers, and one cheer more for Mrs. Symes, which were cordially given. And the PRESIDENT, acknowledging, said the duties were not so heavy as they might think—at least during the first year of office—because of the immense amount of work there was to be done the burden fell upon the secretaries. They were the men who bore the burden of the Conference, and to them their best thanks were due.

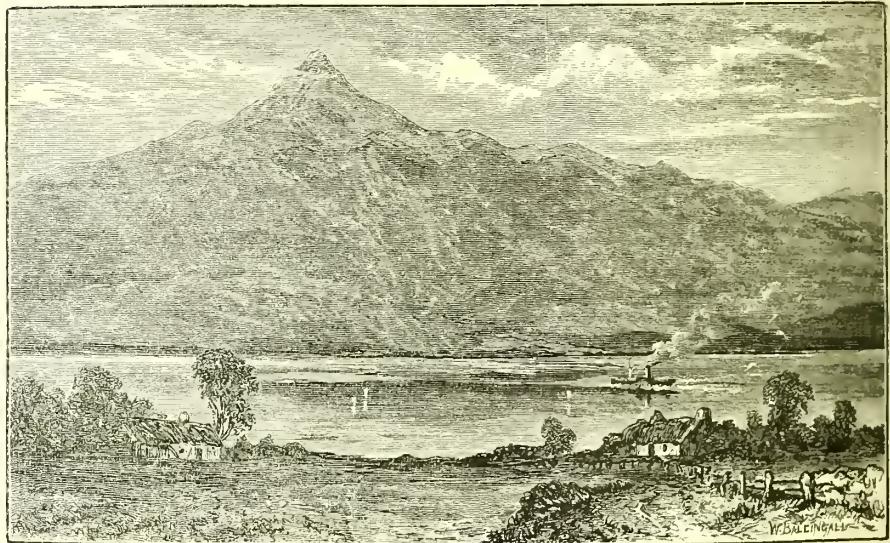
So ended the proceedings of the Conference, Mr. Currie in an informal way making some intimations before the audience had tea and took boats to Mugdock reservoir.

commemoration on the same lines. But we were agreeably surprised. Splendid weather favoured the party (numbering about 450 members and friends, and including a large sprinkling of ladies) who took part in the closing sate of this record Conference.

The trip on this occasion was one of which Clydeside people themselves never weary, and which every visitor who goes sight-seeing is bound to make. To sail down the river, which has made the "second city" what it is, from the Broomielaw to the Firth incans not only a waste of valuable time, but in hot weather the subjection of one's olfactory nerves to a rather severe test—the Clyde is, as yet, by in



THE BROOMIELAW, A CHARACTERISTIC BIT OF THE CLYDE AT GLASGOW.



LOCH LOMOND.

### THE EXCURSION.

TWENTY-ONE years ago, when the Conference visited Glasgow, we commenced our account of the excursion through the Kyles of Bute with the following sentence:—

Nothing is more charming than a steamboat excursion on a fine river in good weather. Nothing can be much more wretched than the deck of a steamboat in drenching rain, unless it be the cabin. It was risky to arrange such an excursion in the West of Scotland in September; but Mr. Stanford charged himself with the weather department, and the result fully justified the confidence which had been felt in his influence with the powers of the air.

Our recollection is that it rained the whole day. Thursday of this week seemed, by the experience of Tuesday and Wednesday, to be an excellent opportunity for a majority

process of purification—so to avoid these the excursionists left the city by special train at 9 A.M., in order to join the Glasgow and South-Western Railway steamer *Glen Sannox* at Prince's Pier, Greenock. The only stoppage was at Paisley. Here a few friends were picked up, and they passed on, by Elderslie, the birthplace of Wallace, "the hero of Scotland," the West of Scotland Orphan Homes at Irongray, and other places of interest, Dumbarton Castle, a notable landmark on a rocky eminence rising on the river side of the firth, being viewed from the train.

Embarked on the *Glen Sannox* the party entered on that part of the excursion which, given fine weather, is pre to be enjoyed by all who love the grand scenery of Scottish mountain and loch. A short sail takes the vessel to Rothesay, the metropolis of the coast, to which Glasgow sends its thousands of health and pleasure seekers every summer.

It is situated on the shore of a lovely bay, with "the big black hills like sleeping kings" sitting round it. Rothesay is at the portal of the Kyles of Bute, the name given to the narrow and picturesque channel between the north end of Bute Island and the mainland, about twenty miles in length and averaging only about a mile in width.

In this way, passing a series of charming little seaside resorts a complete circuit of the island of Bute was made, the splendid view afforded by the lofty peaks of Arran to the south, of which the loftiest and by far the most famous is Goat Fell, being especially admired.

Roaming the south end of the island the steamer sailed northward again, and entered Loch Long, one of those long narrow arms of the sea so common on the Clyde. Loch Long is one of the most notable, the mountains rising steeply either side from the water's edge. At the very head, here it narrows to a point, Arrochar is reached, and on the left, provided there be no mist, the only available view obtained of the most grotesque mountain peak in Scotland—viz., "The Cobbler," otherwise known as Ben Arthur, shaped as like a cobbler at work as could be, with his "l woman" before him.

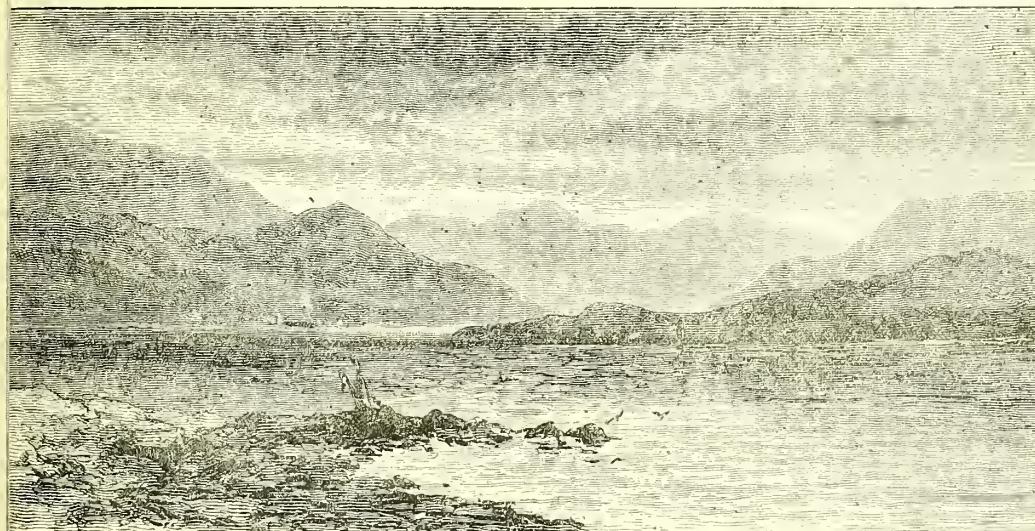
authorities should have granted the local Committee the use of the Galleries.

The scene was well set, the actors were there, but the play fell a wee bit flat—I think that is the correct expression.

**Comparisons are odious**, but man is a comparative animal in spite of himself, and we had looked forward to the second city of the Empire being superlative. So the reception was in many respects. I saw old friends, fine pictures, beautiful ladies, the rough and the smooth of the sterner sex, and I even tasted iced claret cup, and Mackay's Kola something, all of which were positively cool, but I still lack a comparison for that reception.

**The serious business** was not taken too seriously, probably because those beyond the second row of chairs had to regard the proceedings in front of them as one regards a pantomime play. I was amongst that number; but I heard someone in front of me describe the presidential address as *Itanic*. What could she mean?

**The Ladies' Committee** had arranged to take their sisters from other lands some nice drives on Tuesday, but the length of the introductory business left only sufficient interval before lunch for a stroll in one of Glasgow's many parks.



THE KYLES OF BUTE.

The pleasure of the trip was greatly enhanced (be it said with deference to the many orators in the party), by the fact that speech-making was strictly tabooed. In its stead there were music by a fine string-band, mild flirtations and stories of Burns and Scott. Many a pharmaceutical camerist took up-shots of the scenery, and the whole day was so enjoyable as to compensate the excursionists richly for the dreariness of the earlier part of the week.

At Arrochar, within an easy half-hour's walk of Loch Lomond—an instance of the extraordinary manner in which the land is intersected by water—the party landed for an hour and were photographed. Dinner was served after the steamer was rejoined, and the excursion was continued down Loch Long and, rounding another point, up the Gareloch, another of the Clyde's most picturesque arms, the head of which is in turn less than a mile from a point in Loch Long passed by the steamer about an hour before. This practically finished what was a long and interesting tour, embracing a very large portion of the scenery of the West of Scotland, and the party returned to Glasgow by rail, *via* Prince's Pier.

**The lady visitors** were well looked after, and during the meetings visited many places of interest in and around the city, and enjoyed many acts of hospitality, and they desire to give public expression to their gratitude; they think they can do this best in the *C. & D.*

**The morning's audience** fought shy of the afternoon session, and for the most part amused itself in detachments until the time came to take the train at Charing Cross for Balloch and Loch Lomond. The weather is a never-ending source of amicable contention between the Glaswegian and his guests. It was fine when we left the hotel, but, knowing the caprices of which the clerk is capable, the knowing ones equipped themselves with the customary weapons of defence. A few trusting souls lived to regret their negligent temerity. We saw Dumbarton Rock on the way down to Balloch by train.

**Loch Lomond** is one of Scotland's jewels, they say. Well, every jewel looks better as it sparkles in the sun, and, sad to say, there was no sun. When the lowering clouds broke into rain a philosopher said, "No matter, we may be sure we see Loch Lomond under its most natural condition, and as it has been seen by the majority of our countrymen."

**Tuesday evening** was given up to the worship of the muse and Terpsichore. In the drawing-room Mrs. McAdam presided over the ladies' concert, which was in full swing when these lines were written, but the sample I heard was excellent. Those who contributed were, Miss McAdam, Miss C. McAdam, Mrs. McAdam (London), Mrs. J. C. Umney, the Misses Martin (Newcastle-on-Tyne), Mrs. Leo Atkinson, Mrs. S. R. Atkins, and Mrs. W. L. Currie. I may mention that evening dress was rigidly adhered to by most. The dance which followed pleased everybody.

## SOCIAL EVENTS OF THE B.P.C.

**At the Reception** some of us thought Glasgow might have one better. The Corporation Art Galleries are too spacious and the salons too numerous for any feeling of fulness to be conveyed by an attendance of three hundred and fifty persons. The Art Treasures are valuable, and it says something for the general trust reposed in the pharmacist that the municipal

## WHO WERE THERE.

UP to Tuesday evening 7½ pages of the Conference attend-  
ance-book were filled with signatures, and by Wednesday  
this was increased to 9 pages. The previous highest in the  
book was Manchester in 1837 (8 pages), when the attendance  
numbered 239. We subjoin the names of those present at  
Glasgow, but many were there who did not sign.

Adam, Thos., Glasgow  
Alexander, J., Waterloo  
Allen, C. B., London  
Allen, Mr. and Mrs. H. W. F.,  
Kirkcaldy  
Anderson, A. B., Dundee  
Anderson, Marshall, Dundee  
Arkinstall, W., London  
Attfield, Dr. John, Watford  
Atkinson, Leo and Mrs., London  
Bain, J. and Mrs., Liverpool  
Bain, John, Bridge of Allan  
Baptie, J., Dumfarton  
Bascombe, F., London  
Baxter, John, Ballymoney  
Beggs, G. D., Dalkey, Ireland  
Bilson, F. E., Bournemouth  
Bird, F. C. J., London  
Blair, T., Glasgow  
Boa, P. and Mrs., Edinburgh  
Bolton, C. A., Nottingham  
Bourdais, J., London  
Bourdais, Miss E., London  
Bowen, J. M., London  
Bowman, J., Leith  
Bownmont, W. L., Edinburgh  
Boyd, A., Glasgow  
Bridge, G. E., Bournemouth  
Bremridge, R., London  
Brodie, R., Glasgow  
Brown, D., Rainy, Edinburgh  
Buck, A. S., Liverpool  
Buckman, Thos. F., London  
Buller, J. W., Ashby-de-la-  
Zouch  
Butler, E. H., Leicester  
Carmichael, M., Glasgow  
Cave, H. B., London  
Champion, G. A., Durban  
Champion, H. L., Durban  
Champion, Edith G., Durban,  
Natal  
Clarke, Goddard, London  
Clarke, W. J., Stockton-on-Tees  
Clementi, Miss, Manchester  
Coats, Mr. and Mrs. J. T.,  
Edinburgh  
Collier, H., London  
Conyngham, H., Dublin  
Cooper, Mrs. F. R., Manchester  
Cooper, Miss M., Manchester  
Cooper, Fred R., Manchester  
Coul, G., Leith  
Coul, Mrs. George, Leith  
Cowley, R. C., Liverpool  
Craig, Andw., jun., Aberdeen  
Cruickshank, John, Aberdeen  
Cummings, C., Dundee  
Currie, W. L. and Mrs., Glasgow  
Currie, Master Jack, Glasgow  
Davidson, A., Montrose  
Druce, G., Claridge, Oxford  
Dunlop, Thomas, Glasgow  
Dyson, W. B. and Mrs., London  
Emerson, Mr. and Mrs., London  
Ewing, J. L., Edinburgh  
Fairburn, Henry, Northallerton  
Ferrier, D. H., Dundee  
Fisher, Mr. and Mrs. J. H.,  
Dunfermline  
Fisher, W., Edinburgh  
Foggan, Geo. and Mrs., Bed-  
ford  
Ford, James, Kirriemuir  
Ford, Jessie, Kirriemuir  
Foster, Mr. and Mrs., Glasgow  
Fraser, Alex., Paisley  
Frazer, F. L., Glasgow  
Frazer, S. M., Glasgow  
Gadd, H., Exeter  
Gates, C. G., Brighton  
Gibbs, R. D., Birmingham  
Gibson, S., Belfast  
Gill, F., Nottingham  
Goldfinch, G., Hendon, N.W.  
Greig, W., Glasgow  
Grimes, Henry, Blackrock  
Grose, N. M., Swansea  
Halley, J. M., Glasgow  
Harkness, Mr. and Mrs. John,  
Edinburgh  
Harley, P. T., Perth  
Harris, E. W., Merthyr Tydfil  
Harvie, N. T., Helensburgh  
Hatrick, W. L., Glasgow  
Hayles, B. H., London  
Hendry, R. L., Edinburgh  
Henry, C. F., Edinburgh  
Hicks, W. S., Cardiff  
Hill, J., Rutherford, Edinburgh  
Hills, Walter, London  
Hinksman, J., Carlisle  
Hobbs, A. E., Tunbridge Wells  
Hobbs, Frank H., Tunbridge  
Wells  
Hogg, Andw., Leven  
Hogg, Samuel, Belfast  
Holmes, E. M., London  
Hoseason, J., Henry, Glasgow  
Hudson, Thos. H., Liverpool  
Hughes, J., Swansea  
Humphreys, G., Northwich  
Hunt, L. J., Hot Springs,  
Arkansaw  
Hustler, W., "Allen & Han-  
bury's"  
Idris, T. H. W., Mrs., and Miss,  
London  
Jack, James, Arbroath  
Jackson, J. E., and Mrs., Stir-  
ling  
Jarvis, C. F., Birmingham  
Johnson, R. A., Newcastle  
Johnson, Miss E., Wigan  
Johnson, T., Wigan  
Johnston, John, Aberdeen  
Johnstone, C. A., Manchester  
Johnstone, W. G., Dumfries  
Kelly, P., Dublin  
Kerr, Charles, Dundee  
Kerr, James, Greenock  
Kermath, Wm. R., St. Andrews  
Kitchin, Geo. Shiveh, Glasgow  
Kline, Mr. and Mrs. M. N.,  
Philadelphia  
Laird, Geo. H., Edinburgh  
Laing, A., Glasgow  
Lake, J. Elliot, Exeter  
Lake, J. Hinton, Exeter  
Lambie, Hugh, Glasgow  
Laurence, John, Glasgow  
Laurie, W. J., Dumfries  
Law, Wm. T., Glasgow  
Law, Mrs. W. T., Glasgow  
Lawton, Mrs., Manchester  
Lees, David, Greenock  
Leith, Peter, Rothesay  
Lunan, Mr. and Mrs. George,  
Edinburgh  
Maben, Thos., Hawick  
MacEwan, Peter, London  
Martin, Mr. and Mrs. N. H.,  
Newcastle-on-Tyne  
Martin, Misses, Newcastle-on-  
Tyne  
Mathews, Henry, Oxford  
McAdam, A. Milne, Glasgow  
McAdam, Mrs. N., London  
McAdam, Robt. and Mrs.,  
Glasgow

McAdam, Chrissie, Glasgow  
McKellar, A., Glasgow  
McKenzie, Jas., Edinburgh  
McKnight, R. W., Belfast  
McLaren, D., Edinburgh  
McMillan, Allyce, Glasgow  
McMillan, D. M., Glasgow  
McMillan, John and Mrs.,  
Glasgow  
McMurray, J., Helensburgh  
McMurray, Peter B., Helens-  
burgh  
McMurray, Miss, Helensburgh  
McWalther, J. C., Dublin  
Merrin, Archd. C., London  
Merson, G. F., Newcastle  
Millar, Miss Annie, Perth  
Mitchell, P., Dumfauton  
Moir, D., Glasgow  
Moir, Jas., Glasgow  
Moss, John, London  
Naysmith, Arbroath  
Neat C. C. and Mrs., London  
Neil, J., Glasgow  
Nesbit, John, Portobello  
Newton, John, Liverpool  
Nightingale, J. C., London  
Nisbet, John, Portobello  
Nisbet, Miss M. A. L., Portobello  
Parkinson, F. W., Atherstone  
Paul, Benj. H., London  
Pearson, W., Waterloo  
Perry, G. E., Birmingham  
Pettinger, Mr. and Mrs. E.,  
London  
Pidd, A. V., Manchester  
Proctor, C. A., Monkseaton  
Proctor, W. H., Newcastle  
Rait, R. C., Partick  
Ramsay, J. A., Glasgow  
Ransom, Mrs. F., Hitchin  
Reeve, Alfred, London  
Remington, Joseph P., Phila-  
delphia  
Ritchie, D., Aberdeen  
Robb, Jas., Glasgow  
Robertson, A. M., Glasgow  
Robertson, D. L., Rutherglen  
Robertson, G. and Mrs., Partick  
Robinson, R. A. and Mrs.,  
London  
Robinson, W. Prior, London  
Robson, T. W., Tiverton  
Russell, J., Dundee  
Russell, J. A., Glasgow

Sangster, Arthur, London  
Savage, G. and Miss I. W.,  
Brighton  
Schmidt, A., Glasgow  
Seyler, Clarence A., Swain-  
ton  
Shacklock, J. W., Streath-  
am  
Shark, W., Newcastle  
Sharp, Mrs., Whitley  
Shaw, John, W. & Mrs., Llan-  
shepherd, Mr. and Mrs. W.,  
Settle  
Smith, John, Alexandria  
Smith, John, Liverpool  
Smith, W. R., Liverpool  
Stanford, Alice, London  
Stanford, E. C. C., Dalm-  
uir  
Storr, David, Kirkaldy  
Sutherland, J. W., Glas-  
gow  
Symes, Charles, Liver-  
pool  
Symes, Mrs., Liverpool  
Taylor, D., Motherwell  
Taylor, W. B., Glasgow  
Tocher, J. F., Peterhead  
Tocher, R., Maybole  
Toone, Arthur H., Exmoor  
Toone, John A., Bonneth  
Tyer, Thomas, London  
Turner, A. E., London  
Ummey, C. E., London  
Ummey, Mr. and Mrs. Jo-  
hn, London  
Vallance, Arthur C., and  
M. Mansfield  
Walker, John, Glasgow  
Walker, Mrs., Glasgow  
Wallace, Mungo, Glasgow  
Wallace, W., Glasgow  
Walsh, D. J. A., Dublin  
Want, W. P., London  
Ward, G., Leeds  
Wardleworth, Theo. H.,  
pool  
Warren, Wm., London  
Warwick, F., Malta  
Watson, Annie, Glasgow  
Watson, D., Glasgow  
Watson, M. M., Campbell  
Watson, Robert, Glasgow  
Weir, A. S., Aberdeen  
Wells, W. F., jun., Dublin  
Weston, T. J., London  
White, T., Dublin  
Wild, John & Mrs., Man-  
chester  
Williams, W. G., Conway  
Wright, T. R., London

## The Pharmacy Act in Jersey.

AT a special sitting of the Jersey States last week the bill  
on the Practice of Pharmacy and Sale of Poisons in the  
island, introduced into the House on February 27, 1838, by  
Dr. Walter Duret Aubin (Deputy of St. Helier), was  
discussed. The translated preamble reads as follows:—

Whereas it is expedient for the security of the public that all  
persons who offer for sale, prepare, or retail poisons, and that  
all those who practise the profession of chemist or druggist  
should possess the special and practical knowledge of their  
profession, the States have adopted the following regulation to the  
force of law.

Deputy Duret Aubin briefly moved its adoption, and the  
Mayor of St. Helier (Mr. H. E. Le V. Durell) seconded, pointing  
out that one local chemist (a Frenchman) used to make  
a practice of advertising in French papers that his business  
was for sale, and that, as no law on pharmacy existed in the  
island, a special opportunity was thereby offered to those  
who had failed to pass their examinations.

The Attorney-General for Jersey (Mr. W. H. Vernon) supported, commenting on the comparative safety  
with which poisons could be bought in the island, he  
The preamble was adopted unanimously. Articles 1, 2, 13  
were accepted without discussion. They read as follows in  
English:—

Article 1.—From the promulgation of this regulation, no one  
may exercise the profession of chemist or druggist in this island

unless he has obtained the permission of the Royal Court in virtue of the said regulation.

*Article 2.*—The Royal Court, save the exceptions referred to hereafter, shall only grant this permission to those who have been admitted as "Pharmaceutical Chemist," or "Chemist and Druggist" by the Pharmaceutical Society of Great Britain; or as "Pharmaceutical Chemist" or "Chemist and Druggist" by the Pharmaceutical Society of Ireland; or as "Pharmacien de Première Classe" or "Pharmacien de Seconde Classe" by one of the Schools of Pharmacy of the University of France.

*Article 3.*—The Royal Court, in granting the said permission, shall state in its Act the title or qualifications in virtue of which it is granted.

Some discussion ensued on Article 4, which, as moved by Dr. Dut Aubin, read—

4. That chemists and druggists already established and practising their profession in this island before the 1st day of January, 1896, may obtain, as a special concession, the said permission of the Royal Court without presenting diplomas as specified by Article 2 of the present regulation. The Act of the Royal Court granting the said permission shall state the fact of the previous establishment of the grantee and his non-production of diplomas.

Deputy Dut Aubin withdrew the words "before January 1, 1896," as there was a general opinion that all who were now in practice in the island should be accepted. The article thus reverted to its original form.

Deputy E. B. Renouf suggested an amendment admitting assistants to the privilege of registration, provided they were British subjects, aged 21 years, and could produce certificates from one or more chemists and druggists stating that they had been employed, either as assistant, chemist and druggist, or apprentice in pharmacy during five consecutive years previous to the said promulgation. Mr. Renouf urged that assistants were often more competent than their employers, yet had possibly never set up in business for themselves from financial reasons or otherwise. Jurat alle said the States should pass laws for the benefit of the public, and not of a certain class only; and the Attorney-General thought the amendment would open wide the door to abuses which the law sought to check or prevent. Deputy Renouf's amendment was rejected by a considerable majority. The remaining articles were adopted by the States as proposed by the author. We give them below in English translation:—

*Article 5.*—The Royal Court may in all cases require from every person applying a duly-legalised certificate of good conduct and morals.

*Article 6.*—The legal representatives of a chemist or druggist who has practised his profession in this island shall be permitted to continue the business after his death; provided, however, that the medicaments and drugs shall be prepared, sold, and retailed by an assistant duly qualified and authorised by the Royal Court to exercise the profession of chemist or druggist in this island.

*Article 7.*—The Greffier shall annually prepare a list or table of the persons who have obtained permission to practise the profession of chemist or druggist, as well as the title or qualifications in virtue of which the said permission has been granted, which list will remain affixed in the vestibule of the Royal Court.

*Article 8.*—It is forbidden to any chemists or druggists duly authorised to practise their profession in this island to prepare, sell, or retail poisons.

*Article 9.*—It is forbidden to the said chemists or druggists to sell poisons, either wholesale or retail, unless there is on the bottle, box, or packet containing the poison thus sold a label bearing the name of the poison, the word "Poison" in large letters, and the name and address of the vendor.

*Article 10.*—They are also forbidden to sell the said poisons, in the first part of the said list, to minors aged less than 16 years, or to persons unknown to the vendor unless these persons are introduced to him by someone else whom he knows.

*Article 11.*—They shall also be bound to keep a special book in the following form:—

| Date | Name and address of purchaser | Name and quantity of poison sold | Purpose for which it is required | Signature of purchaser | Signature of person introducing purchaser |
|------|-------------------------------|----------------------------------|----------------------------------|------------------------|-------------------------------------------|
|      |                               |                                  |                                  |                        |                                           |

and enter, or cause to be written, the above details applicable to the sale of poisons mentioned in the first part of the said list of poisons.

*Article 12.—List of Poisons.*—The following substances are comprised under the names of poisons:—

#### FIRST PART.

Arsenic and its preparations.

Prussic acid and its preparations.

Cyanide of potassium and all metallic cyanides and their preparations.

Strychnine and all poisonous vegetable alkaloids and their salts and preparations.

Atropine and its preparations.

Aconite and its preparations.

Emetic tartar.

Sublimate corrosive and its preparations.

Cantharides.

Savin and its essential oil.

Ergot of rye and its preparations.

All preparations containing any of the poisons enumerated in this First Part and used or sold for the destruction of vermin.

#### SECOND PART.

Oxalic acid.

Chloroform.

Carbolic acid.

Chloral hydrate and its preparations.

Belladonna and its preparations.

Morphia and its preparations.

Nux vomica and its preparations.

Opium and its preparations, and the preparations of poppies.

Red oxide of mercury (commonly known as red precipitate).

Ammoniated mercury (commonly known as white precipitate).

All preparations containing any of the poisons named in this Second Part, and used or sold for the destruction of vermin.

Tincture of cantharides, and all vesicating liquid preparations of cantharides.

Essential oil of almonds, unless deprived of prussic acid.

*Article 13.*—Articles 8, 9, 10, and 11 of this regulation do not apply to poison or poisons forming part of the ingredients of a medicine prepared by a doctor or surgeon duly authorised to practise medicine or surgery in this island, or by a member of the Royal College of Veterinary Surgeons. Articles 9, 10, and 11 of this regulation do not apply to the poison or poisons forming part of the ingredients of a medicine prepared by a chemist or druggist, clearly registered under this regulation; provided, however, that this medicine prepared by a chemist or druggist bears the name and address of the vendor, and that the ingredients of which it is composed are entered, with the name of the purchaser, in a special book kept by the vendor, and called the "Prescription-book."

*Article 14.*—He who obtains the permission of the Royal Court to practise pharmacy by means of a false diploma, certificate, or other document, or by assuming a wrong name, or making use of a diploma which has not been delivered to him by the Pharmaceutical Society or School of Pharmacy from which it emanates, or is supposedly issued, shall be liable to three months' imprisonment at least, or one year's at most, and may not subsequently practise pharmacy in this island.

*Article 15.*—He who has incurred a judicial condemnation, at Jersey or elsewhere, entailing an ignominious penalty, may not practise pharmacy in this island, and if he had already obtained permission to do so, the Royal Court, on proof of the said condemnation, shall withdraw that permission at the instance of the Public Prosecutor. Condemnations for political offences are, however, exempted.

*Article 16.*—Every person who infringes Articles 8, 9, 10, and 11 of this regulation shall be liable, for the first offence, to a fine not less than 2*l.* sterling and not exceeding 5*l.* sterling. In the case of repetitions of offence, he shall be subjected to a fine of not less than 5*l.* sterling, and not exceeding 10*l.* sterling, or a term of imprisonment not exceeding one month.

*Article 17.*—The Royal Court shall deal with contraventions to the present regulation, and the offenders shall be prosecuted at the instance of the Public Prosecutor.

Article 13, as printed above, is a modification of the one first drafted. We have the satisfaction of stating that it was altered by the author in the interests of chemists in accordance with a suggestion made in an editorial note in this journal of March 28, 1896. In the original Bill the exemption as to labelling would have applied only, so far as chemists were concerned, to medical prescriptions dispensed by chemists. Finally the whole Bill was read a third time and passed *nem. dis.* The Pharmacy Act came into force on being duly printed, published, and posted on August 14, and remains in force in Jersey for at least three years, when it will again have to go before the House for revision, readoption, or possibly repeal.

GOLD MEDALS 1884-1885-1886-1888.

# “SANITAS” DISINFECTANTS

“SANITAS” EUCALYPTUS PREPARATIONS.

TRADE  
MARK.

Kingzett's Patent Sulphur Candles,

Kingzett's Patent Drain Testers,  
Patent Preserved Peroxide of Hydrogen,  
Mercuric Bactericide, Eucalyptus Oils.

L. G. B. Corrosive Sublimate } Soluble Antiseptic  
Permanganate of Potash } Pellets.  
Carbolic Acid

“Okol” and “Crocide” Fluids and Powders; Chloride of Zinc; Carbolic Fluids, Powders, Acid, and Soaps; Soluble Carbolated Crocose; Moth Paper; Weed Destroyer, Sheep Dips, &c.

**THE SANITAS CO., LTD.**  
BETHNAL GREEN, LONDON, E.

# ELLIS'S TABLE WATERS

“Absolutely Pure.”—  
A. URE, M.D., F.R.S.,  
L. THOMPSON, M.R.S.,  
Analytical Chemists.

SOLE ADDRESS—

[2]

**R. ELLIS & SON, RUTHIN, NORTH WALES.**

London Agents: W. BEST & SONS, Henrietta Street, Cavendish Square.

**PUREST IN ENGLAND.**

# BOURNE TABLE WATERS

Supplied in Six Dozen Cases,  
Carriage Paid by

SODA, SELTZER,  
LITHIA, POTASH, LEMONADE,  
GINGER ALE, &c.

Analysis, &c., on  
Application.

**R. M. MILLS & CO.,  
BOURNE,  
LINCOLNSHIRE.**

West End Agents, **WHEATLEY & SONS**, 24 South Audley Street, W.  
City Agents, **RAE & CO.**, 6 Railway Place, Fenchurch Street, E.C.  
And of all Chemists, Wine Merchants, Hotels, &c.

**REDUCTION IN PRICE.**

# HORA'S P.B. SEIDLITZ POWDERS

PERFECTLY FOLDED,  
**4/3** per Gross.

**47 MINORIES, LONDON.**

# JOHN MOSS & CO.'S PERFECTED “GALEN” ELASTIC CAPSULES

Elegant in appearance and shape. Free from taste or smell. Do not pit. Readily soluble. Quite full. Contains pure and of the highest quality.

IN BULK OR BOXES.

Customer's own Name and Address on Labels if desired.

Apply for Samples and Prices before Buying elsewhere.

**THE GALEN MAN'F'G CO., LTD.**  
Wilson Street, New Cross Road, S.E.

# COCA-TONIC CHAMPAGNE

Prepared and Bottled by the Growers at Bouzy-Reims, from the finest Natural Champagne, and the leaves of the Erythroxylon Coca, and not from Coca. We supply “Coca-Tonic” Champagne with Chemists’ name on the Labels.

For prices and particulars, apply to the Sole Proprietors—  
**HERTZ & COLLINGWOOD**, 38 Leadenhall Street, LONDON, C.

**HORLICK'S**

# MALTED MILK

FOR

**Infants & Invalids.**

34 FARRINGDON ROAD, E.C.



“IGNORANCE SHUTS ITS EYES AND BELIEVES IT IS RIGHT.”

Intelligence opens its eyes and sees the beauty of

**Fletchers' Concentrated Liquor.**

Editorial



Comments

## THE CONFERENCE.

The thirty-fourth meeting of the British Pharmaceutical Conference commenced seriously in Glasgow on Tuesday morning, with something like Imperial and International tones, for the presence of Professor Remington (of Philadelphia) and the President of the Natal Pharmaceutical Society gave an unusual touch to the preliminary proceedings. Another characteristic of the meeting was the exceptionally large attendance. At the time of writing the record has not been completed (if it ever will be), but the number present on Tuesday probably exceeded any that we have previously observed. It was, however, painfully noticeable that the attendance shrank as soon as the so-called scientific business came on—the hundreds literally became tens. Elsewhere we report the proceedings very fully, and now shall here deal in lighter vein with the original contributions to pharmaceutical literature; but we should first say that

numerically and financially, the Conference is better off this year than it was last.

We all recognise and admit the wisdom, the greatness, and the eminence of our front-bench pharmacists, and when one of them is invited to fill the presidential chair of the British Pharmaceutical Conference it is an intimation to us that we value, and want to hear, his utterances in regard to pharmacy, or some branch thereof. But the assimilation of one such address per annum is as much as the ordinary mind can accomplish, and now comes Dr. Symes, and offers us the essence of the thirty-three past presidential addresses. Thirty-three of them in an hour is a meal from which the most stalwart of consumers might shrink; but was the fare provided for the conferees at Glasgow this week by their chief.

In a year, when we have all been retrospecting, Dr. Symes's survey of the history of the Conference was appropriate enough. It was modest, too, on his part to limit his fusions to the duty of panorama-showman, but, from our own point of view, we confess to some disappointment. Dr. Symes has always treated pharmaceutical topics in fresh and broad-minded style. He has been, in our view, wrong as often as he has been right, but he has always been one who has recognised that sound judgments can only be arrived at by the consideration of subjects from all points of view, and consequently he has never objected to discussion. For these reasons we are sorry he did not offer us more of his own ideas in place of a recapitulation of those of his predecessors.

Only in the latter part of his presidential address does Dr. Symes submit his own opinions. The most prominent of the reforms which he advocates is an examination intermediate between the Preliminary and the Minor, and he expresses the opinion that the institution of such an examination would be legal. Very likely he is correct on this point. An intermediate examination would probably be as legal as the present Preliminary at any rate, and if it is not we may assume that the Privy Council would readily sanction any by-law legitimising it. Possibly they would allow a further increase of fees to boot, so that the "intermediate examination" is a good reserve stand-by for the Pharmaceutical Society when they have succeeded in dissipating the new income they are hoping to get. Dr. Symes puts the case for an interim examination very effectively as follows:—

"I want examination to be regarded not merely as a test of man's knowledge, but also as a part of his education. If an interim examination were instituted which could be passed, say, two or three years after registration as an apprentice or student, and which would comprise some of the subjects now taken in the Qualifying examination, there would be an inducement for a youth to study from the commencement of his business career, there would be a gradual building up of his knowledge, it would become part of himself and would be permanent."

On the other hand, we may remember that for reasons best known to themselves that of their inefficiency many educational authorities are getting to distrust examinations more and more. They not only do not accurately test a student's capability; but they tend to cripple such capability as he naturally possesses. They are perhaps necessary evils, but we may hope that a new one will not be introduced into the pharmaceutical course without the most thoughtful consideration.

The injustice of refusing to pharmacists an official position on the Pharmacopœia Committee and the iniquity of cutting g-pices for drugs are somewhat ancient topics; and the allegation that the Pharmacy Act of 1868 has disappointed expectations is an imperfect charge, inasmuch as it

leaves out of the reckoning the animosity towards the Act manifested by an influential section of those who were responsible for its administration; by the majority of the Pharmaceutical Council, indeed. Let the saddle be put on the right horse.

The address brought a hearty vote of thanks to Dr. Symes, which local talent, in the persons of Mr. Stanford and Mr. W. L. Currie, commented upon (the Lord Provost did not stay to hear it); and Dr. Atfield (a rare visitor to the Conference) in putting the vote to the meeting, mentioned that eight of the ten men who preceded him in the chair have gone to their long home. The genial doctor, who was first wet-nurse to the Conference, next gave his well-grown baby

**Asafoetida** a good meal in the first paper of the day—an interesting communication on the spelling of or

**Asafetida?** our word for *Teufelsdröck*. Professor Max

Müller has told him that "asafetida" is a better spelling than "asafetida," and Dr. Murray, the editor of the "English Dictionary," confirms this in an interesting letter, which constituted the better part of the communication. So "asafetida" it is likely to be—in the next B.P., we might add, but the editor says nothing about that. The discussion on the paper was good, and it brought an interesting statement from Professor Remington regarding the use of the words "officinal" and "officinal" in American pharmacy. The general opinion seemed to be that the diphthongs "æ" and "œ" are a bit of a nuisance, especially in botanical nomenclature.

**Conium.** Messrs. Farr and Wright have concluded their classic research on conium-fruits by a sort of pharmaco-physiological contribution. They have prepared definite solutions of coniine and conhydrine, and standardised preparations of the fruit, which they submitted to Dr. Finlay, of Buxton, for physiological test. The results are disappointing, for little difference in the actions could be observed, and the galenical preparations were not tested.

**Animal Medicines.** It is the privilege of pharmacists who have qualified in medicine to instruct their erstwhile *confrères* in matters medical, and that militant

Irish pharmacist, Dr. J. C. McWalter, who has lately taken the Irish "double qualification" (all honour to him that he stuck to pharmacy while doing it), did no more than he was entitled to by lecturing the Conference on the sins of organotherapy, and what pharmacists do to promulgate them. Dr. McWalter's observations were really opinions. He objects to drying, powdering, and compressing the thyroid glands and other organs which are now used as remedial agents, because such forms of medication delay research upon the principles upon which the specific action of the organs depends. He recommended glycerine maceration and dialysis instead of the tablo-therapeusis. There was a good deal of wisdom in Dr. McWalter's observations, but, as often happens with masters of invective, some error. It was Professor T. R. Fraser, one of the most careful living therapeutists, who discovered that the thyroid gland when dried *in vacuo* and powdered is as active as the fresh gland, and consequent upon that observation the powdered thyroid was prepared in the tablet form, with the approval and under the advice of medical specialists, including Dr. Murray, of Newcastle, who was the first to use the thyroid as a medicinal agent in myxoedema. So also in regard to other organs which are used medicinally; and we repeat now, what we have said over and over again in regard to organotherapy, that medical men have worked in this matter in the old empirical spirit. Too little is known about many of the human glands to predicate what their secretions are, or what they are destined to do, and pharmacists have simply filled the orders of physicians in preparing certain of

them for internal administration. These observations were in a measure supported by all the speakers, who claimed that the glands dried and powdered under strict antiseptic conditions have been found active and useful.

**Citronella Oil.** Mr. J. C. Umney communicated, in a skilful abstract of the paper printed elsewhere, the

interesting fact that the native distilled oil of citronella has not so high a specific gravity as that distilled by two English firms in the East. He and Mr. R. S. Swinton have investigated the reasons for the difference, and find that the native oil contains a large percentage of a heavy and high-boiling sesquiterpene, which reduces considerably the odour value. The "English" oil is of finer aroma on this account, and Mr. Umney explained that the low specific gravity of the native oil is not an indication of impurity. The difference referred to is probably due to the use of steam-heat by the English firms in distilling, and of fire-heat by the natives: at any rate lavender oil distilled by steam is found to be of much finer odour than the oil distilled by fire-heat as done at Mitcham. Mr. Umney also mentioned that Sir Walter Gilbey is experimenting in the cultivation of lavender at Elsenham, in Essex.

**Sumatra Benzoin.** Mr. Thomas Dunlop communicated some interesting results of the examination of Sumatra benzoin, as found in our home markets, showing that the matter insoluble in rectified spirit contained in it ranges from 8 to 28.8 (or even 30) per cent., the best comment upon the figures being that both these benzoins were invoiced as "opt." and that the wholesale prices bore little relation to the qualities of the resins supplied. Mr. Dunlop pointed the natural moral, insisting that the drug should have a better official standard, and should be estimated before use, due allowance being made for impurities. If Mr. Dunlop's remarks may be taken as a criterion of the knowledge of Sumatra benzoin in the retail trade, the fact appears not to be so well known to them as to wholesalers that this benzoin is a manufactured article. We have published several editorials upon the benzoins during the past seven years, and in one of them—September 26, 1891—we showed that the Chinese merchants, who control this trade, "systematically adulterate the benzoin by the addition of inferior gum resins, wood, or earth," and buyers familiar with the London market well know what an "olla podrida" Sumatra benzoin is. It may, however, be said that a standard of insoluble matter is recognised by competent buyers. Thus Dieterich's repeated assays of the resin show that from 7.5 to 10 per cent. of matter insoluble in 90 per cent. alcohol is the range for first-class resins, and if pharmacists would only insist upon getting resins of the standard, the Chinese manufacturers would in time supply it. The fact should not, however, be overlooked that the soluble matter may not be all benzoin, so that other qualitative tests—such as the acid, ester, and saponification values—should be determined, these in the hands of German chemists having given good indications of quality. The paper (which was the last one taken on Tuesday) brought forth a good discussion, during which it was agreed that Mr. Dunlop's communication was a typical pharmaceutical one. His statement that much of the commercial benzoic acid is artificial was denied by Mr. Umney and Mr. Tyrer; but Mr. Dunlop did not desert his position on that point. The suggestion to use Siam benzoin for medicinal purposes was made, and received some support; but the best outcome of the paper was the marked attention given to the impurities in the Sumatra kind, and doubtless chemists and druggists will note Mr. Dunlop's interesting facts.

**Arsen. Tart.** Professor G. G. Henderson, the successor of the late Dr. Dittmar, at Anderson's College, made a very useful contribution to the conference—indeed, to *materia medica*—in his "Note on the Soluble Compounds of Arsenic." The best of these compounds is a homologue of tartar emetic made by boiling 100 parts of arsenious acid with 190 parts of acid sodium-tartrate, when sodium arsenio-tartrate,  $As_2O_3 \cdot Na_2C_4H_4O_6 + 2\frac{1}{2}H_2O$ , is formed, 1 gr. of which is equal to  $\frac{1}{3}$  gr. of arsenious acid. It dissolves easily in water, and the late Professor Charteris found to have the same physiological action as liquor arsenic. Professor Henderson has produced other similar compounds of arsenic, but none of them appeared to be so suitable for medicinal purposes as his tartarated arsenic. Yet the discussion on the paper indicated that caution may have to be exercised in the use of the salt, as it effloresces on exposure.

**Pharmaceutical Ethics.** It required some courage to resume the topic which Mr. Ince so successfully dealt with in 1886. Mr. Atkinson alluded to Mr. Ince's paper on "Pharmaceutical Ethics" as "one of the classics of pharmacy." It is, and we do not propose to use a word in depreciation of it. But when Mr. Atkinson reminds us that it is thirty-one years ago that the original paper was read, we cannot avoid a reflection on the audacity of the young gentleman who lectured us all so severely at that time. For Mr. Ince is still a young man amongst us; thirty-one years ago he was, we should judge, just about the age when men are most ready to decide all subjects, ethical as well as especially. His paper, unquestionably, set pharmacists thinking, and it is still bearing fruit, as Mr. Atkinson's distribution testifies. Mr. Atkinson reviews and endorses Ince's views, and then considers whether the thirty-one years which have elapsed have found us any better. Apparently, he thinks we are not. The reasonable expectations which the Pharmacy Act inspired have not been realised, the aristocracy have invaded all branches of commerce, the abnormal development of company-trading has damaged our ethical uprightness, and the new by-laws of the Pharmaceutical Society seem to be the only hopeful spot in Mr. Atkinson's horizon. We are not quite clear what was the precise lesson Mr. Atkinson wished to enforce. He uses that "it is a commercial blunder, as well as a breach of pharmaceutical ethics, to degrade the pharmacy to the level of a toy-shop." Commercial blunder we agree; but we know of no moral principle which should influence the pharmacist and which is not as binding on the toy-shop man. In other words, we are not sure that this assumption that a superior, or at any rate a different, standard of virtue is required for pharmacists, as compared to that which toy-shop-keepers and other mortals have to be judged by, which is the keynote of the attempts to formulate a special code, is a healthy one. It is constantly before us in medical literature, and is certainly not tended to make doctors more agreeable in their relations with those whom they are educated to believe in themselves. There was a general expectation at Glasgow that the paper would take up an afternoon, but the "powers that be" shifted the venue to the columns of the trade journals, and if chemists have anything fresher and better to say to Mr. Atkins, Professor Remington, and others said with half an hour, we shall be glad to hear from them.

**Easton's Syrup.** One of the three local communications was by Mr. Robert Brodie, on Easton's syrup. He gave a new formula for this, after showing that the coloration of the syrup is an inheritance from its base, syr. ferri phosph. The new point is the use of hydrochloride of quinine instead of phosphate, a course which Mr. J. Umney justified in the course of the brief discussion by the fact that there are two phosphates differing in quinine content.

Mr. Charles T. Tyer, in his paper on "Hypophosphites," reviewed official and other tests for hypophosphorous acid and its salts, condemning them, especially in regard to the manner in which they are defined. He pointed out that it is impossible to obtain hypophosphites absolutely free of phosphate, phosphite, and sulphate always being present. He then proceeded to explain the reduction of mercuric chloride and cupric chloride and sulphate by hypophite, showing that cupric sulphate affords an accurate means for assaying hypophosphites, the cuprous oxide being estimated indirectly with potassium thiosulphate. Mr. Tyer then described the qualitative tests, dealing *seriatim* with each of the salts and acids and he incidentally showed that the sulphuretted hydrogen hypophosphate syrups arises from the use of charcoal for decoloration of hypophosphorous acid. The charcoal reduces a trace of free sulphuric acid in the hypophosphorous acid to sulphurous acid, which is ultimately reduced to hypophosphorous acid to sulphuretted hydrogen; without charcoal, or a similar reducing body, hypophosphorous acid does not act upon sulphuric acid. A very good discussion followed, in the course of which the young author was much complimented; but some speakers maintained that phosphites exist in hypophosphites, and is the cause of the trouble, while others blamed the sugar.

An unexpectedly interesting paper was contributed by Mr. F. C. J. Bird on "Medicinal Petroleum," by which he really meant the heavy petroleum oil now largely used in pharmacy, and special since the introduction of petroleum emulsion in the manufacture of that preparation. In that case it has been found that a very bad odour is occasionally developed in it, which has been charged to the hypophosphites general put in the emulsion; but Mr. Bird found that when absolutely pure hypophosphites were used the odour was still developed. He, therefore, turned his attention to the oil, with the result that he found in nearly all the bleached petroleum oils appreciable amounts of sulphur the presence of which was determined by the action with sodium-plumbate solution and the colour of the part to lead-acetate paper by the gases produced through hydrogen. The conclusion which Mr. Bird came to was that the sulphur is introduced in the bleaching-process, and it is not found in the American oil (one only examined) in the unbleached products. A very interesting discussion followed this, in which there was ample corroboration of Mr. Bird's discovery, and many high compliments were paid to him for the thoroughness with which he had done the work. Professor Remington made an interesting contribution respecting the origin of vaseline-like compounds. The first one was "Cosmoline," introduced by a Philadelphia man, who was so convinced that it would become world-wide an unguent that he named it after the Cosmos. This was the next thing, and when the U.S.P. Committee voted to introduce the new base as "petrolatum," Dr. S. A. D. Shepherd, of Boston, went to the Pennsylvanian field and discovered that the stuff was made by char- al-faction of an oil-tank sediment called B.S. oils. Aromatic purification of this is impossible, considering the fact at which the products are sold, viz.—as low as 3d. per lb.

Mr. Sheriff Claridge Druce knows Scottish flora better than any other Englishman, and it was a happy thought of someone asking him a half-an-hour about it. This he did at the beginning of the fourth session, without notes or preparation, in a light way, pointing out what plants are peculiar to Scotland and where they are to be found. Once the Sheriff

spoke about the English coronation-chair, when he was hailed with cries of "British" all over the room, and he and all other poor Englishmen in the room wondered what was up—the fact being that Scotchmen, while not objecting to their coronation-stone being used for crowning the Sovereigns of the United Kingdom, distinctly object to the kingdom being called England while Scotland remains an integral and unconquered part of it. Here are some of the plants which maintain this independent spirit:—

|                       |                                              |
|-----------------------|----------------------------------------------|
| Caltha radicans       | Lactuca alpina                               |
| Draba rupestris       | Arctostaphylos alpina                        |
| Cerastium trigynum    | Loiseleuria procumbens                       |
| Arenaria norvegica    | Moneses grandiflora                          |
| A. cherleri           | Primula scotica                              |
| A. sultacea           | Pinguicula alpina                            |
| Astragalus alpinus    | Gentiana nivalis                             |
| Oxytropis campestris  | Veronica saxatilis                           |
| O. uralensis          | V. alpina                                    |
| Pyrus scandens        | Betula nana                                  |
| Potentilla Sibbaldi   | 4 Salices                                    |
| Saxifraga cernua      | Eriocaulon septangulare                      |
| S. rivularis          | Polygonatum verticillatum                    |
| S. caespitosa         | 11 Sedges                                    |
| Erigeron alpinus      | 4 Grasses, including Holy grass (Hierochloe) |
| Gnaphalium norvegicum | 2 Ferns                                      |
| G. supinum            |                                              |

From this point discussion on the papers was vetoed, as the Conference had much business to get through before trying to get to the Mugdock Waterworks, but waters fresh from the heavens proved too much for them—perhaps because of the repeated flippant references to the matter.

On several occasions during the past twelve months we have published extracts from the

**Alkaloidal Tinctures.** reports of Mr. C. A. Seyler, B.Sc., in his official capacity as analyst to the Glamorgan County Council, upon the quality of alkaloidal tinctures sold in his district. Mr. Seyler's reports exhibit a more intelligent appreciation of pharmaceutical possibilities than is commonly shown by his *confrères*, and it is particularly notable that his reports have appeared to be written with the view of getting retail pharmacists to pay better attention to the quality of the tinctures. This is fulfilling the objects of the Adulteration Acts in the best spirit. Mr. Seyler now communicated to the Conference a description of the process which he generally adopts in assaying the tinctures—viz., dealcoholising by evaporation a measured portion of the sample previously acidified, restoring the bulk with water, washing the acid liquid with chloroform to get rid of wax, &c., then adding ammonia, and dissolving out the alkaloid with chloroform. These second chloroform-washings yield the alkaloid on evaporation, and the amount is checked by titration. Incidentally, Mr. Seyler described an apparatus for separating the chloroform emulsions, and gave the results of assays of commercial tinctures of aconite, belladonna, cinchona, henbane, nux vomica, and opium.

**Liquor Bismuthi.** It is not the first time that a Students' Corner competitor has figured before the Conference—indeed, several are now on the executive of the body—but rarely has so good a piece of work been contributed by any of them as that of Mr. W. G. Stratton's on "Liquor Bismuthi." The paper originated in one of our Dispensing-column discussions. Some dispensers obtained a clear mixture with liquor bismuthi and a bicarbonate, others could only get a mixture containing a precipitate of bismuth carbonate. We suggested that the presence of excess of ammonium citrate in the liquor which gave the clear mixtures accounted for the difference, and Mr. Stratton, following up our suggestion, has found this to be the case. This settles one point, but the paper raises other points—viz., that the majority of commercial liquors contain nitrate as an impurity, are somewhat variable in bismuth strength, and

are more than twice as strong as Schacht's liquor bisulphite, which contains an excess of ammonium citrate. Mr.

**Phosphates and Platinum.** Mr. Stratton also communicated a note calling attention to the fact that when alkaline phosphates are fused on platinum the metal fuses.

**Disinfectant Soaps.** Dr. Samuel Rideal's paper was unfortunate in being at the tail end of the proceedings, for the subject was one which afforded good opportunity for comment. He has examined a large number of popular disinfectant-soaps, both chemically and bacteriologically, and finds that many of them have comparatively little, some of them no bactericidal power.

**Mydriatic Alkaloids.** Dr. Gordon Sharp, of Leeds, came back once more to his first love, pharmacy, with a paper on "Our Present Knowledge of the Mydriatic Group." It was intended to show the members of the Conference what a beautiful jumble chemists have got into with the solanaceous alkaloids, and how pharmacology and therapeutics in the hands of Dr. Gordon Sharp have reduced the mydriatic group into the simple expression "atropine." He claimed that duboisine is a mixture of atropine with more or less piturine, daturine is atropine, hyoscyamine cannot be distinguished by the chemist or pharmacologist from atropine, hyoscine (commercial) is largely made up of atropine, and scopolamine may be nothing more nor less than impure hyoscyamine or atropine. All this was put forth with fairly complete references to the work of Ladenburg, Hesse, Schmidt, and other recent chemical workers on the mydriatic alkaloids; but Dr. Gordon Sharp's pharmacological data were as meagre as his appreciation of the niceties of the hyoscyine-scopolamine controversy, the last phase of which, as expressed by Dr. Merck, he seemed to be ignorant of; while Dr. Jowett's recent discovery of characteristic gold compounds of hyoscyine hydrobromate should alone have prevented Dr. Gordon Sharp's somewhat dictatorial conclusions had he known of it.

**Belfast and Brighton.** A cordial invitation to Belfast next year was promptly accepted by the Conference, and Mr. Savage, of Brighton, made things comfortable for 1899 by stating that his colleagues there want the Conference to visit the Queen of the South then. Dr. Symes was re-elected President. We shall not dogmatise about results, but it was quite apparent that sociality is on the ascendant and science declining, which is exactly the experience of all similar societies.

#### A PHARMACY ACT FOR JERSEY.

THE law relating to the practice of pharmacy and the sale of poisons was revolutionised in the island of Jersey at one sitting of the local Parliament last week. It would be more correct to say that the law was created on that occasion, for previously none existed. Dr. W. Duret-Aubin, the author of the new Act, is to be congratulated on the care with which he drafted his Bill, and on the skill with which he has carried it through. He had, we believe, abandoned any hope of carrying his measure this year. The last days of the Session had arrived, and there had been no talk of it. But a carbolic-acid poisoning case occurred in the island, and attracted the attention of the acting President of the States. He put the Bill in the agenda of business for a special sitting of the Assembly, and it went through with very little opposition.

The Act admits to the Register every pharmacien and druggist established in business in the island at the time of the promulgation of the new Act, but it does not recognise

assistants or apprentices. A week elapses between the adoption of the Act and its promulgation, and Jersey correspondent informs us that some assistants are trying to take temporary shops with a view of getting registered, then going back to their situations again. All pharmaceutical chemists or chemists and druggists of either Great Britain or of Ireland, and all pharmaciens of France, first or second class, are eligible for registration, but the Court Royal is empowered to demand in any case from any outside a certificate of good life and morals. The legal representatives of deceased chemists and druggists are entitled to carry on the business left in the island, but all medicines must be prepared and sold by a qualified assistant. The regulations as to the sale of poisons correspond with those in force in Great Britain, except that in addition no poison in the first part of the schedule may be sold to minors under 16 years of age. Needless to add, that carbolic acid appears in the schedule—in the second part. The new law is "regulation" which remains in force for three years, and then comes up for revision. Regulations do not require the approval of the Queen in Council, as permanent Acts.

#### GOODS FOR CANADA.

The Canadian Customs Department at Ottawa has issued a form of declaration which must be filled in by firms desirous of entering goods under the reciprocal tariff, allowing a rebate on the products of nations who admit Canada goods on favourable terms. It runs as follows:—

#### FORM OF DECLARATION.

I, the undersigned, (partner or duly authorised agent of the firm of) of (name of firm) and truly declare that the articles described in the annexed invoice (marked ) shipped to per in packages as detailed below, are bona fide the property of ; that the said invoice contains a full and true statement of the fair market value when sold or consumed of the said goods at the time and place of the exportation thereof direct to Canada; that such fair market value includes any bounties, drawbacks, royalties, etc., charges that may have been or are expected to be allowed or paid on the said goods, or is payable on patent rights or because of the lease of such goods, or for the right of using the same and that no different invoice or account thereof has been or will be furnished to anyone by me or on my behalf.

| No. and Description of Packages | Marks | Numbers | Description of Goods |
|---------------------------------|-------|---------|----------------------|
|---------------------------------|-------|---------|----------------------|

Subscribed and declared this day of  
at  
Before me

} (Signature)

This declaration must be sworn by the exporter or agent before a commissioner of oaths, a British Consul, the chief municipal officer of the town, or the Present Secretary of the Chamber of Commerce. It will be noticed that under the form of declaration goods made abroad, but shipped from this country (certain fine chemicals, for example), cannot be passed as British-made goods.

#### WHEN DO WE COME IN?

The skirmishing which characterised the last meeting of the Irish Pharmaceutical Council, as reported on the first pages of this issue, was doubtless very enjoyable to those directly concerned; but to outsiders the entertainment must be curtailed by the circumstance that we do not know what it is all about. We have asked both Mr. Dow and Mr. Bernard for details, but both decline to say on the subject. Irishmen are too modest; they do not like to boast what an interest the Saxon takes in a Celtic debate.

## Legal Reports.

### PETROLEUM HAIR-WASHES.

AT Westminster Police Court, on August 7, Louis Fradin, a hairdresser, St. George's Place, Knightsbridge, and Frederick Chaventre, of Sloane Street, were summoned by the London County Council, under the Petroleum Acts, 1871 and 1879, for storing petroleum contrary to the regulations and without a licence. Mr. Godfrey, who appeared for the Council, stated that persons were allowed to keep a limited quantity in pint bottles, properly labelled, for private use or for sale. The defendant (Fradin) was using it in his business. Mr. Sheil: Is not that "private use"? Mr. Godfrey didn't think so, when it was used publicly. Of course, he didn't press for a heavy penalty. Mr. Sheil said he was inclined to accept Mr. Godfrey's view that it would be too much to say that this wash was for private use when it was used in a shop. He thought the Act applied, unless there was a licence. Mr. Godfrey thought it only fair to say that the defendant discontinued the use of this dangerous wash when he heard of the shocking accident. Mr. Sheil: I should not think anyone would use it afterwards. Mr. Goeby: On the contrary, sir, one firm in the West-end began using it immediately afterwards, on account of its being a source of great profit. After evidence had been given by Mr. Wade, one of the inspectors of the Council, as to finding the petroleum hair-wash in the basement of the first-named defendant's premises, Mr. Sheil asked Fradin whether he had a licence. Defendant: No. Mr. Sheil: The penalty—2s. a day—is exceedingly heavy, and very properly so. However, I do not think you knew the regulations, but if this happens again the penalty will be very high indeed. I shall fine you 20s. and two guineas costs. In the case against Chaventre, Mr. Godfrey stated that a gallon vessel was found containing  $\frac{1}{2}$  gallon of the liquid. An ordinary cork was used, and the vessel was labelled "Antiseptic shampoo." Chaventre admitted that he had no licence, but added that he was not aware that it was petroleum or in any way a dangerous wash. Mr. Sheil made the penalty the same as in the first case—20s. and two guineas costs.

Seven more West-end hairdressers, including Emile Fuchs, of Induit Street, in whose shop the accident to Mrs. Sanderson occurred, were summoned to Marlborough Street Police Court on Wednesday by the London County Council for keeping a quantity of petroleum without licences, contrary to the Petroleum Acts of 1871 and 1879. Mr. J. W. Godfrey, who prosecuted, said there was an idea that the liquids could be used with safety in the absence of light or fire, but such was not the case, for in manipulating the hair, electricity was generated, a spark of which would cause an explosion. It was the electric spark that caused the explosion, and the County Council was anxious that the public should know that such was the case. In some cases the flash-point of the stuff used was as low as 60°. Three of the defendants were said to be on the Continent, and the summonses against them were adjourned. The defence was that the defendants did not know they were required to have a licence to keep the stuff, and were not aware of the risk that was run in using it. The practice of using it had now been discontinued. Fuchs was fined 3*l.* with two guineas costs, and the other defendants 2*l.* with two guineas costs, and with one guinea costs.

### THE ANISOLINE-DYE CASE.

IN the Queen's Bench Division of the High Court on Saturday, Mr. Justice Wills gave judgment in the dye case of the Badische Anilin und Soda Fabrik, of Ludwigshafen, *v.* La Société des Usines du Rhône, Anciennement Gilliard P. Mont et Cartier, of Lyon, and J. D. Wilson, of Bradford. The action was for an injunction restraining the defendants from importing into England, and manufacturing, selling, supplying, or using in England, certain dyes sold by the defendants under the name of anisoline and tri-anisole, and manufactured according to the specifications filed in pursuance of plaintiffs' letters patent of 1887 and 1892. During the trial, which lasted for fourteen days, the plaintiffs admitted that as to the patent of 1887 the com-

plaint had been satisfactorily answered, and that judgment must be given for defendants. With regard to the other patent his Lordship gave a lengthy judgment. Having gone into the technicalities of the various processes he said he could not agree, as had been contended, that Monnet's specification of 1892 anticipated the invention of the Badische Company. The plaintiffs' patent, in fact, took part two of Monnet's, did exactly what Monnet said must not be done, and worked it out to perfect success. Dr. Berthelsen, the real author of the plaintiffs' patent, arrived at that startling result only because he made the discovery that the rhodamine base was itself capable of behaving as an acid. Surely there was enough of both discovery and invention in that to support a dozen patents. As to products, Monnet's process would make an article containing 70 per cent. of pure anisoline and 30 per cent. of unconverted rhodamine; but plaintiffs' product was pure anisoline, and seemed to him to be a substantially different product from anisoline with 30 per cent. of unconverted rhodamine. Having dealt with the processes and specification, he said the result was that there would be judgment in the action for the defendants as to the patent of 1887 upon the issue to infringement, and upon the question of validity as to the patent of 1892 in respect of the particular objection of insufficiency so far as it related to Example 2, and for the plaintiffs on all the other issues. His Lordship granted a certificate that the objection of insufficiency in Examples 1, 2, and 3 of plaintiffs' patent was reasonable. Judgment for plaintiffs on the issue as to the infringement of the patent of 1892. Costs on the higher scale. The following were the counsel engaged in the case:—Mr. C. A. Cripps, Q.C., Mr. Roger Wallace, Q.C., Mr. W. N. Lawson, and Mr. J. Graham for plaintiffs; and Mr. J. Fletcher Moulton, Q.C., Mr. W. R. Bousfield, Q.C., and Mr. A. Colefax for defendants.

### COUNTY COURT CASES.

#### A CHEMIST'S CLAIM FROM A RAILWAY COMPANY.

AT High Wycombe County Court on August 4, before Sir A. G. Marten, Mr. Horace Ridley, chemist and druggist, Risborough, sued the Great Western Railway Company for 16*s.*, the value of two oil-drums alleged to have been lost on the company's line whilst in transit. Mr. Ridley stated that on November 17, 1896, a cask containing two oil-drums was consigned by him to Messrs. Collett, Dodds & Co., of London. When the cask arrived the drums were not in it. Cross-examined, he said he had not read a condition on the consignment-note which said that no claim would be entertained for goods lost in transit unless written notice was given within three days. That was not in accordance with the company's practice, which was to pay the claims when loss was proved, whether notice was given in three days or not. Mr. Hubbard, who appeared for the railway company, said the company were reasonable people, and would not always adhere strictly to the three days, but here it was three months. Evidence of delivery having been called, Mr. Hubbard contended that there was no proof that the loss occurred on the company's line. Mr. Ridley urged that the want of proof of the loss arose by the company not giving at the delivery end proper particulars of what the consignment consisted of. If the cask had been delivered as it was consigned—as a cask containing two drums—the loss would have been discovered at once. His Honour said it was for plaintiff to make out negligence on the part of the company. This he had not done, and the action therefore failed. Judgment was entered for defendants, with costs.

### ACTION AGAINST CAMWAL.

ON August 11, at the Clerkenwell County Court, before Judge Meadows White and a jury, Sarah Holt, bottle-cleaner, of 80 Gifford Street, Clerkenwell, sought to recover from the Chemists' Aerated and Mineral Water Association (Limited) damages for personal injuries alleged to have been received through the defendants' negligence. The action was brought under the Employers' Liability Act. Mr. Woodfall appeared for the plaintiff and Mr. Hill for the defendant company.

Plaintiff stated that she was employed by the defendants to polish up the metal tops, clean the glass, and label

syphons after they had been filled with aerated water. On May 27 last, as she was passing a bench upon which were a number of syphons, and which had been cleaned and made ready to go out by another employé, one of them containing soda-water exploded, and cut all the tendons in her wrist, which has caused her, up to the present, to be unable to use her fingers or the thumb of her left hand. The doctor at the Royal Free Hospital had told her that in all probability she would never entirely regain the use of her thumb, but that her fingers would get better. The work was so hazardous that they were compelled to wear masks over their faces to protect them. In cross-examination, plaintiff said she was positive that after the syphons had been out to the public and returned to them to be recharged there was no inspection to see if the bottles had sustained any injury or were fit to be recharged. They were taken from the carrier's van, put on trolleys, and run direct to the cylinder to be filled. The fillers were paid at the rate of 3d. per gross, and, of course, the more they filled the more they earned.

Sydney Wm. Richardson, surgeon Royal Free Hospital, Gray's Inn Road, said he examined plaintiff's wrist that morning. She would probably never entirely regain the use of her thumb, as the two leaders of the thumb were severed.

Robt. J. Andrews said he was a mineral-water engineer. He had been in the employ of the defendant company about nine and a half years, but left in September of last year. Whilst the syphons are being filled they are subjected to a pressure of 180 to 200 lbs. to the square inch, they are then in a cage, and if they should explode whilst in that cage they could not harm anybody; but there is no protection after being placed on the benches, or after being stacked away ready to go out to the public. During the first part of the period he was in defendants' employ they used French elastic glass, but at the time he left they were using Vienna glass. The Vienna syphons were 6s. per dozen cheaper than the French. Their syphons were rendered more liable to explode as they were placed under a skylight, through which the sun's rays poured upon them. He thought that bottles or syphons of aerated waters should not be placed anywhere where the sun could get at them. In cross-examination, he said it was possible that one of the fillers may have been negligent in not properly filling the syphon, as they are not paid much, and work very quickly. They are paid by piece work—so much a gross.

Caroline Mountain, forewoman to defendant, said that all their fillers and bottle-cleaners are supplied with masks and also arm-guards, which they are expected to wear. They were using the most expensive glass, and had purchased 3,000 this year. She had known syphons burst while being cleaned. She explained the process of filling them, and said the syphons are all examined before they are used.

Frank Robert Stevens, analytical chemist, and chemist to the Idris Mineral Water Company, said he had considerable experience in aerated-water manufacture. The pressure in the syphon after being charged would be only about 100 lbs. to the square inch, but to force it in requires a pressure of about 200 lbs. to the square inch. If there was a flaw or any defect in the syphon it would be more likely to explode whilst being charged than at any other time. He knew that occasionally a syphon would explode in a shop or an ordinary room, but he could not account for that.

The jury returned a verdict in favour of the plaintiff, and awarded her 15*l.* damages. His Honour gave judgment accordingly.

#### A MANCHESTER CHEMIST'S AFFAIRS.

AT the Salford Hundred Court of Record on August 10, before Mr. H. G. Shee, Q.C., Judge, Robert Frederick Browne v. Andrew Macnair (trading as "Macnair & Co.") was heard. It was an interpleader issue. Mr. Rhodes appeared for the plaintiff, and Mr. Roe-Ryecroft for the defendant. Mr. Rhodes explained that Mr. George Joseph Copping, chemist and druggist, lately carried on business at 18 Stockport Road, Manchester, where he had been established since 1879. In 1889 and 1890 Mr. Copping became acquainted with the plaintiff, Mr. Browne, and a friendship sprang up between them. In 1892 or 1893 Mr. Copping desired to patent his "Sangifo," a great blood-

purifier, and his "Dentifo," a compound for the gums. In order to push these patents on the market he borrowed from Mr. Browne for advertising purposes three separate sums of 50*l.* each on his 10*l.* at 5 per cent interest. These sums were lent at intervals between April 5, 1894, and January 17, 1895. No interest, however, was paid by Mr. Copping. The business with regard to the two patents was not successful, and towards the end of 1896 or beginning of 1897 Mr. Copping had a lawsuit with some wholesale dealers, and lost it. He then asked Mr. Browne to lend him another 50*l.*, but Mr. Browne could not go much further, seeing that he had received no interest on the previous sums. Consequently Mr. Copping sold him the contents of the shop, and the goodwill of the business for 200*l.*, simply retaining the two patents. Mr. Copping had back his three 10*l.* s., and received a further sum in cash of 30*l.* Browne also paid the two-quarter's rent owing, and was accepted by the landlord as tenant in place of Mr. Copping. Copping took away his furniture, and although the name of Browne was put on the door, that of Copping was also retained as evince of goodwill. The transaction took place on March 24 last. The landlord had previously threatened to distrain for rent, and could have done so at any moment, when all goodwill and stock would have been lost. For two or three weeks it was arranged that Mr. Copping should act as assistant to Mr. Browne and educate him in the business, for which he was to receive 30*s.* per week and 10 per cent. on the takings, but Browne found the takings so small that he had to dispense with Mr. Copping's services, although he allowed him to practise a little dentistry at the place, and occasionally received a little assistance and advice from him. On June 1, 1897, Messrs. Macnair & Co., who were creditors of Mr. Copping for about 2*l.*, put in an execution and seized goods belonging to Browne, although Copping, immediately after completing his transactions with Browne, issued a circular to all his creditors, informing them what he had done, and offering them a composition of 5*s.* in the pound, to be paid out of his future earnings. The creditors were therefore fully aware of what had taken place. Mr. Browne gave evidence bearing out this statement, and was severely cross-examined by Mr. Roe-Ryecroft as to his means, &c. In reply to questions, he said he had been a draysalter, but it was only a lad of 15. Since then he had travelled on the C. & N.W. with an invalid gentleman. He had money in the Edinburgh Savings Bank. He had also lived in London. When he took over Mr. Copping's business he made no inventory and took no steps to ascertain the value of the goods. He had heard that Copping a few years previously had given a bill of sale over his furniture. Mr. Copping was also examined, and, in reply to Mr. Roe-Ryecroft said he had offered to sell his business before disposing of it to Browne. He had tried for two years to sell it to anybody, but no one would have it. He had asked 200*l.*, 250*l.*, and as much as 3*l.* for it. It was a shame that fraud should be suggested against him by the opposing counsel. Mr. Roe-Ryecroft suggested on the part of his client that the whole thing was a blind by which to defeat Copping's creditors. Mr. Roe-Ryecroft said that the business was really Copping's, that he was only a figure-head in the place, and that Browne was merely the figure-head. He pointed out that Copping's name was still retained, although the name of Browne only appeared on the door in small letters. The shop and its contents were also in the possession of Copping, and the bill of sale, not having been registered, the transaction was voided against the creditors. Mr. Rhodes submitted that it was not a bill of sale, but merely a receipt for money. The Judge summed up at some length, in the course of which he said a more plain and straightforward statement than that made by Mr. Copping in the matter he had never seen. He had also, in his circular, clearly stated the facts to his creditors. Mr. Browne had likewise apparently acted as a friend of Copping, and completed what even Mr. Roe-Ryecroft had almost admitted to be an honest transaction. The Jury at once found a verdict for the plaintiff, with costs, believing the sale to be a bona-fide transaction.

#### TOO MUCH COMMISSION.

ON Tuesday, at the Tredegar County Court, Mrs. Mary Florence Giles, wife of Mr. E. Giles, chemist, Newport

brought an action against David Charles Davies, rent-collector, Tredegar, to recover 178*l.*, rents collected on her estate at Tredegar. The plaintiff was the administratrix of the estate of a late Mr. Waites, chemist, Tredegar, and the defendant was engaged to collect the rents of a number of cottages and shops. She considered the commission he charged too high and refused to pay it, whereupon the defendant returned the moneys he had collected. His Honour was of opinion that defendant charged too much commission, and gave judgment for the plaintiff for the amount claimed.

#### THE CHEMIST AND HIS AGENTS.

At Leicestershire County Court on August 10, George Dobson, wholesale and retail chemist, of Leicestershire, sued H. E. Shorey & Son, corn merchants, of Wellingborough, for 9*l.* 8*s.* 8*d.*, in respect of goods sold and delivered. Mr. Simpson, who appeared for plaintiff, stated that in January last the plaintiff's son called on the defendants at Wellingborough, and asked them to become sole agents for the sale of plaintiff's goods in that district, the terms being that they should receive one-third of the selling price of the goods as profit. The defendants agreed to the agency, on condition that they were also appointed as sole agents for Rushden, as this was agreed to by plaintiff. The defendants gave an order for certain goods, which were duly delivered, but in March, the plaintiff received a letter from the defendants, stating that the agency had been pressed upon them by the plaintiff's son, but as there was no demand for the goods, they would be glad to return them. Plaintiff replied offering to take a cheque for half the amount in settlement, and to give credit for three months for the remainder, but these terms were not accepted, and proceedings were consequently taken. The defence was that no terms were mentioned at the time of the agency being accepted, and that the defendants merely acted as agents in the ordinary sense of the word. They did not purchase the goods outright, and it was all through that he would only be called upon to pay for what he sold. He was quite willing to pay for what he had sold, and return the remainder. Eventually his honour held that plaintiff had established his case, and gave judgment for the amount claimed.

#### THE SOLE AGENCY QUESTION.

At Gravesend County Court on August 4, before Judge Ellen, the Johanniss Mineral-water Company, now amalgamated with the Apollinaris Company (Limited), 4 Stratford Place, Oxford Street, London, W., sued Messrs. Woodford & Co. (Limited), of Gravesend, for 22*l.*, balance of account for goods delivered. The defendants counter-claimed for 50*l.*, damages for breach of agreement. Mr. Salter was for the plaintiffs, and Mr. Hohler for the defendants.

The question in dispute was whether Messrs. Woodford were appointed sole agents or not, and after going through a long correspondence His Honour held that defendants failed to show that there had been any breach of contract on the part of the plaintiffs, and they had also failed to make out a counter claim. He gave judgment for the plaintiffs in both instances, with costs.

#### CAUTION TO INVENTORS.

At the Westminster County Court on Monday, before Judge Miley Smith, Mrs. Maria Way sued for the return of 2*s.* paid to Messrs. Hughes & Co., patent agents, in connection with an invisible bonnet-pin invented by her. Plaintiff went to Chancery Lane in search of the Patent Office, and seeing a placard in a window bearing these words, he went in. Plaintiff stated that, in answer to her question, she was informed it was the Government Patent Office, he unfolded her ideas, and paid a deposit for an English patent. She discovered later that it was Hughes's patent, not that of the Government, but she let Hughes go on with her invention. In October, 1896, she paid twelve guineas for a patent in Germany, and ten guineas for one in France. She had not got either.

Defendants' representative produced documents in German and French, and said they were patents granted to plaintiff;

but a patent agent called by plaintiff said they were not, and that they gave plaintiff no protection.

Verdict for the plaintiff for the amount claimed, with costs.

[In connection with this case it is worth while to remind those who go to Chancery Lane in search of the Patent Office that the Government office is the only one bearing the Royal Arms. A number of patent agents have offices in the immediate neighbourhood, and in some cases they may try to represent themselves as the Government office, but they are not allowed to exhibit the Royal Arms.—ED. C. & D.]

#### SALE OF FOOD AND DRUGS ACT.

#### THE BIRMINGHAM HEALTH COMMITTEE AND CHEMISTS' PRESCRIPTIONS.

At the Birmingham Police Court on Tuesday, before Alderman Johnson and Mr. T. Waterhouse, George Day Horton, chemist and druggist, of 79 Newtown Row, was summoned for selling adulterated camphor liniment. Mr. Hiley (from the Town Clerk's office) appeared to prosecute, and Mr. Porter for the defence.

Evidence of the purchase of a quantity of liniment from the defendant's shop and the division of the liquid as required by the Act for analysis having been given, Dr. Hill, city analyst, said he had analysed the sample given to him, and he found it contained 10 parts of camphor to 2 of olive oil, which practically amounted to 50 per cent. less of the former than was required. A second sample which he analysed was all right. The liniment was used for colds, rheumatism, bronchitis, and internal congestions, and as the camphor was more important than the oil the result would be that the liniment would only be one-half as good as it should be. In reply to Mr. Porter, he said he had no complaint to make of the quality of the camphor. He only complained of the quantity.

Mr. Porter admitted that a technical offence had been committed, but thought he had an explanation which would account for it. Defendant formerly used a 2-lb. bottle, but this was accidentally broken, and was replaced by a 4-lb. bottle. The assistant, in making up the liniment, only put in the quantity of camphor for a 2-lb. bottle.

Alderman Johnson said it was undoubtedly a case of inadvertence, and he did not think there was any intention to defraud the purchaser. At the same time, the public had a right to be protected. A fine of 20*s.* and costs was imposed.

## Bankruptcies and Failures.

*Re ROBERT AUSTERBERRY*, Southgate, Pontefract, Liquorice-refiner.

THIS debtor, particulars of whose failure were given last week, was examined at Wakefield Bankruptcy Court on August 5. In answer to the Official Receiver (Mr. Ottley), debtor said that five years ago he purchased freehold property for 1,200*l.*; there was a mortgage of 1,000*l.* upon it, and he borrowed the other 200*l.* He spent between 300*l.* and 400*l.* in improving the property. Debtor said he lost 300*l.* by his former partner, Kitchenman. The liquorice-refinery was a good business and showed a nice profit. Owing to his partner absconding, all his creditors were upon him, and he also had the bills to meet at the bank. The examination was adjourned.

*Re MATTHIAS JONES*, 1a Castle Square, Swansea, Chemist and Druggist.

THE following are the Official Receiver's observations on this case:—The debtor started business on his own account as a chemist and druggist about the end of September, 1896, with 160*l.* capital, which he borrowed from his father, and which amount is still owing. Previously he was employed as an assistant in the same business at Liverpool. At the date of the receiving order the sheriff was in possession, but withdrew on being served with notice of receiving order. He kept no books of account, and his method of dealing with his business receipts was to hand all the takings to his

wife, and when he wanted money to pay any bill she used to give him the money to do so. Debtor states he has no household furniture, and what furniture was at his residence was claimed by his wife, who on June 12, 1897, it appears, removed and sold the same for 20*l.* The debtor at the same time, or the day following, gave up the key of the house to the landlady and went into lodgings. Cause of failure as alleged by debtor: "Pressure from a large creditor, bad trade, and competition." The following is a copy of the deficiency account filed by debtor:—"Deficiency, 365*l.* 11*s.* Net loss arising from carrying on business from October 10, 1896, to date of receiving order, after deducting from profits the usual trade expenses (estimated), 45*l.* 11*s.* Household expenses incurred since October 10, 1896, of self and wife (estimated), 90*l.* Difference between cost price of stock and amount same estimated to produce, 250*l.*—365*l.* 11*s.*" According to the accounts filed, the liabilities amount to 513*l.* 3*s.* 11*d.*; and assets, consisting of cash in hand, 1*s.* 8*d.*; stock-in-trade (cost 300*l.*), 100*l.*; trade fixtures, fittings, &c., 80*l.*; other property, 20*l.*; making 200*l.* 1*s.* 8*d.*, from which 52*l.* 8*s.* 9*d.* has to be deducted for preferential claims, which leaves 147*l.* 12*s.* 11*d.*, and shows a deficiency of 365*l.* 11*s.* The following are creditors:—

|                                        | £   | s.  | d. |
|----------------------------------------|-----|-----|----|
| Barclay & Son (Limited), London        | ... | 22  | 19 |
| Garrett, J. E., London                 | ... | 30  | 7  |
| Heath Brothers, Manchester             | ... | 13  | 9  |
| Hodgkinson, Preston & King, London     | ... | 40  | 0  |
| Jones, Matthias, Swansea               | ... | 162 | 0  |
| Marsham, Miss Olive, Guildford, Surrey | 20  | 0   | 0  |
| Roseman, J., Stonehouse, Plymouth      | 19  | 14  | 2  |
| Sharp Brothers (Limited), London       | 16  | 9   | 4  |
| Weaver, Manselton, Swansea             | ... | 19  | 15 |

*Re* THOMAS NODEN BROOKE, 28 High Street, Doncaster, Yorks, Chemist and Druggist.

In this case the following are creditors:—

|                                    | £   | s.  | d. |
|------------------------------------|-----|-----|----|
| Athron, Herbert, Doncaster         | ... | 23  | 0  |
| Cohen, Messrs. J. M., London       | ... | 11  | 4  |
| Duncan, Flockhart & Co., Edinburgh | 2   | 14  | 9  |
| Goodair, E., Doncaster             | ... | 174 | 0  |
| Innocent, Geo., Doncaster          | ... | 10  | 0  |

*Re* EDWARD GEORGE MARKE, 2 Victoria Place, Gravelly Hill, Warwickshire, Chemist and Druggist.

In the Birmingham Court of Bankruptcy on Saturday, upon the application of Mr. Arthur J. O'Connor, of 25 Bennett's Hill, solicitor for the petitioning debtor, Registrar Parry made a receiving order constituting Mr. Luke Jesson Sharp the Official Receiver of the estate.

*Re* CHARLES MONTAGUE, otherwise NAPOLEON HIRSCHFELD, otherwise CHARLES ASHLEY, Red Lion Square, Holborn, and at Clapham, Patent-medicine Proprietor and Vendor.

At the London Bankruptcy Court on August 6 this debtor was brought up in custody for further examination, he having, since the last sitting, been sentenced to four months' imprisonment for offences under the Debtors Act. It will be remembered that he formerly practised in Buxton as a specialist in the cure of rheumatism, and, leaving that business to his housekeeper, he removed to London. For a time he carried on the business at Red Lion Square, and then went away to Germany, but was ultimately arrested on the beach at Boscombe. Examined by the trustee's solicitor in reference to certain transactions with a lady whose name was not mentioned, bankrupt said his memory had become almost a blank since his incarceration. The allegation was that he sold to the lady 6,000*l.* of shares in the Monte Cure Syndicate, and took a charge for 8,000*l.* He denied that he had anything to do with the syndicate, but admitted that he was the managing director, and had drawn all the moneys of the syndicate as he was entitled to do. Asked if he would give the trustee a power of attorney over certain property in Germany, he declined on the ground that he had been wrongfully made bankrupt.

His Honour eventually ordered the debtor to file the usual

statement of accounts, and the examination to be held until after the Long Vacation.

*Re* A. E. EVANS, Brynmawr, Chemist.

At the Tredegar County Court on Tuesday the debtor applied for his order of discharge. There was no opposition, and Judge Owen granted the application, the order to be suspended for two years.

*Re* GEORGE F. UNDERWOOD, 197 and 199 Keuning Road, S.E., trading as G. D'Alberte & Co., Wholesale and Export Perfumer and Manufacturing Chemist.

The first meeting of creditors in this case was held on August 12. The bankrupt states that the title of his firm was a fancy one. He commenced in July, 1895, with 60*l.* capital (10*l.* borrowed), and he ascribes his failure to loss on the trading owing to ill-health, and to the expense of establishing a new business. His accounts show secured debts 435*l.* 3*s.* 6*d.*, and preferential claims 47*l.* 1*s.* The assets are valued at 28*l.* 1*s.* 8*d.*

## Deeds of Arrangement.

*Re* ROSS, WILLIAM PYLE, Duff House, Horwich, surgeon. Dated, August 3, filed, August 7. Liabilities unsecured, 232*l.* 5*s.* 5*d.* Composition of 10*l.* in the pound, payable forthwith. The following are scheduled as creditors:—

|                         | £   | s. | d. |
|-------------------------|-----|----|----|
| Evans, G., Horwich      | ... | 10 | 0  |
| Kay, James, Horwich     | ... | 26 | 0  |
| Klett & Co., Wiesbaden  | ... | 16 | 0  |
| Legat, W. H., Bolton    | ... | 43 | 0  |
| Payne, W. D., Bolton    | ... | 11 | 0  |
| Pendlebury, J., Horwich | ... | 12 | 0  |
| Woodcock, —, Bury       | ... | 28 | 0  |

*Re* TAYLOR, HENRY, 17 Trimet Hill, Colne, chemist and druggist, trustee, John Moore, 24 Portland Street, Colne, accountant. Dated, August 30; filed, August 6. Liabilities unsecured, 82*l.* 11*s.* 10*d.*; estimated net assets, 100*l.* The following are scheduled as creditors:—

|                                       | £   | s. | d. |
|---------------------------------------|-----|----|----|
| Oldfield, Pattinson & Co., Manchester | ... | 14 | 0  |
| Summer, R., & Co., Liverpool          | ... | 17 | 0  |

## Gazette.

### PARTNERSHIPS DISSOLVED.

*Re* EMERSON, T. G., and BARKER, A. H., under the style of Emerson & Barker, Wantage, surgeons, apothecaries, and accon-  
hairs.

*Re* NASON, E., and FRASER, J. G., under the style of Nason & Fraser, Pelly Road, Plaistow, E., physicians, apothecaries, and sur-  
geons.

*Re* SPENCER, R., SPENCER, J., and HOWORTH, F. W., under the style of Spencers & Howorth, Accrington, mineral-water manufac-  
turers; far as regards F. W. Howorth.

### THE BANKRUPTCY ACTS, 1883 AND 1890

#### RECEIVING ORDER.

*Re* MARKE, EDWARD GEORGE, Gravelly Hill, Warwickshire, chemist and druggist.

#### ADJUDICATIONS.

*Re* BILBE, ALBERT, Kingston-upon-Hull, foreman in mineral-water manu-  
factory.

*Re* MORTON, THOMAS, Philadelphia, Durham, surgeon.

*Re* SUTTON, GEORGE SEWELL, Gosport, chemist and druggist.

\* AN INGENIOUS ADVERTISEMENT.—An American chewing-gum maker has hit upon an ingenious idea for furthering the sale of his product. He puts a coupon bearing one of the alphabet in each 5c. package of the gum, and advertises that anyone bringing him the letters spelling certain words will receive a watch, bicycle, or other prize. So intense is the interest manifested in this lottery by the gum-chewers that \$25 has been offered for a single letter needed to complete the words necessary to win a prize. The "w's," "d's," and "e's" seem to be the scarce letters.

## New Companies and Company News.

**BRITISH DRYING COMPANY (LIMITED).**—Capital 85,000*l.*, in 1,700 shares. Objects: To acquire the British Patents of Herich Hencke and Richard Cuncliffe, to enter into a certain agreement, and to carry on the business of driers of all kinds of materials for food, litter, and other purposes, chemical manufacturers, manure makers, white lead makers, off-merchants, &c.

**EDWARD LEPPER (LIMITED).**—Capital 15,000*l.*, in 1,200 shares. Objects: To enter into an agreement with Alice R. Lepp for the acquisition of the business carried on at 56 Great Marlborough Street, London, and at 51 Corporation Street, Manchester, and to manufacture, sell and deal in dental instruments, dentists' furniture, false teeth, and all dental requisites. Most of the regulations of Table "A" apply.

**ATYLENE GAS LIGHT, POWER, AND CALCIUM CARBIDE COMPANY (LIMITED).**—Capital 80,000*l.*, in 1,600 shares. Objects: To enter into an agreement with Joseph Frazer, and to carry on the business of gas and calcium carbide manufacturers, motor and cycle manufacturers, cart, wagon, ship and launch builders, electricians, electrical and mechanical engineers, machinists, fitters, founders, &c. The first directors are to be nominated by the subscribers. Qualification, 200*l.* Remuneration, 100*l.* each per annum (and atra 50*l.* for the Chairman), and a percentage of the profits.

**CHEMICALS AND DRUGS COMPANY (LIMITED).**—Capital 2,000*l.* in 10*l.* shares. Objects: To carry on the business of chemists, druggists, oil and colourmen, patent medicine manufacturers and vendors, &c. The first subscribers (each with no share) are:—David Morrison, Ashley Road, Altrincham auctioneer; Thomas Clayton, junior, 16 Oxford Street, Altrincham, builder; Arthur H. Burgess, Stamford New Road, Altrincham, chemist; John Bailey, 5 Postherne Street, Altrincham, joiner; Walter H. Bridgens, Teddington House, Altrincham, agent; John W. Withnell, 20 Booth Street, Manchester, accountant; Joseph Mooney, 35 John Dalton Street, Manchester, tailor. Registered without articles of association.

**CORNELL & CORNELL (LIMITED).**—Capital 3,000*l.*, in 50*l.* shares (150 preference). Objects: To acquire, take over and carry on the business of chemists, druggists and oil and candle merchants carried on under the style of "Cornell and Cornell" at Ipswich, Suffolk. The first subscribers (each with no share) are:—Philip Cornell, chemist, and Philip P. Cornell, clerk, of 14 Tavern Street, Ipswich; John E. Lin, 11 Bedford Street, Ipswich, chemist; Frederick J. Collyns, 5 Lacy Street, Ipswich, chemist's assistant; Charles J. Cab, 5 Thorofare, Ipswich, oilman; John F. Titchmarsh, 17 Museum Street, Ipswich, C.A.; Miss E. E. Bantoft, 120 Worplesdon Road, Ipswich. The first directors are:—Charles H. Bantoft, Harry B. Bantoft and Isaac L. Ensor. Qualification, 50*l.* Remuneration, 50*l.* per annum, divisible.

**"RAY SYNDICATE (LIMITED).**—Capital 15,000*l.*, in 1,200 shares. Objects: To enter into an agreement with George O. Scott, to acquire any patents, inventions, and rights relating to electricity, and to carry on the business of electricians, mechanical engineers, machinists, surgical and mathematical instrument makers, and providers of all requisites for hospital patients and invalids. Registered office, Broad Street House, New Broad Street, London, E.C.

**ELLIAM, JONES & CO. (LIMITED).**—Capital 16,000*l.*, in 500 shares. Objects: To acquire and carry on the business of a colour, paint, varnish, barytes, whiting, emery, emery-cloth and glass-paper manufacturer carried on by Richard Pybus at Derby, as "Elliam, Jones & Co." Registered office, Markeaton Mill, Markeaton Street, Derby.

**MOND EMERY COMPANY (LIMITED).**—At the first annual meeting of this company, held on Friday, August 6, a dividend of 5 per cent. on the first year's working was declared.

THE capital of the Badische Anilin und Soda Works at Mannheim has recently been increased by the issue of new shares to the amount of 1,500,000*m.*, and now reaches a total of 18,000,000*m.* During the last few years the company has paid a steady dividend of 26 per cent.

**THE NORTHERN DRUG COMPANY (LIMITED).**—The *Edinburgh Gazette* of August 6 contains a notice that at an extraordinary general meeting of the Northern Drug Company (Limited) held in Glasgow on August 3, a resolution was adopted that it had been proved to the satisfaction of the company that the company could not, by reason of its liabilities, continue its business, and that it was advisable to wind it up. It was also agreed that the company be wound up voluntarily, and that George Duke Stirling, C.A., Glasgow, be appointed voluntary liquidator.

## Trade Notes.

MESSRS. EDWARDS & CO., the proprietors of "Harlene," announce that they are now giving their best terms on all cash orders amounting to 2*l.* net. New customers are also supplied with a twenty-colour showcard and with counter-bills.

A MISTAKE occurred in the soap advertisement of Messrs. May, Roberts & Co., which appeared in colours on the back inside page of the cover of our Summer Number. "Visitors" soap was there quoted at 6*s.* per gross; the figure should have been 9*s.*

MESSRS. EVANS, GADD & CO., Exeter, have prepared an illustrated price-list of the specialities for counter-trade, packed goods, and perfumery which they put up, and to this they append a full net price-list of patent medicines and proprietary articles generally.

IN our notice of the supplement inserted in our Summer number by Messrs. Brunner, Mond & Co. (Limited) we stated that they offered to send a 2-ewt. bag of their bicarbonate of soda for a 10*s.* postal-order "carriage free." This was an error. Their offer is to send it "carriage forward."

MESSRS. BURGOYNE, BURBIDGES & CO., referring to the notice of Messrs. Raimes, Clark & Co.'s "Dermacura" specialities in our issue of last week, inform us that they have for many years put up a "Derma-Cura" specific for cutaneous affections in bottles to retail at 1*s.* 6*d.* each, and quoted it in their export-list.

MESSRS. FERRIS & CO. announce two injunctions they have recently obtained against chemists restraining them from selling or supplying under the name of "nepenthe" or any colourable imitation thereof, any medical preparation not prepared by them. The word "Nepenthe" is Messrs. Ferris & Co.'s registered trade-mark.

## Personalities.

MR. FREDERICK A. STOOKE, son of Mr. Arthur Stooke, chemist and druggist, 166 High Street, New Brompton, Kent, has passed the London University Matriculation.

THE Glasgow *Bailie* of August 11 publishes a portrait of Mr. Robert McAdam in connection with an almost correct account of the British Pharmaceutical Conference.

MR. JOHN DAVIDSON, the poet, was first of all a chemist in a Greenock sugar-refinery, then a chemical analyst, and lastly a pupil teacher.—*Rocket.* [Puzzle: To find if he has gone up or down.]

MR. JOHN DUNLOP, who, as mentioned last week, had taken highest honours in the Scotch Triple Medical examination at Glasgow, was formerly in business as a chemist and druggist at Hull.

THE Wiltshire County Council have appointed Professor Muero, of Bath, public analyst under the Sale of Food and Drugs Act, in the place of Mr. J. W. Gatehouse, resigned.

MR. CHAS. A. BENTLEY, assistant to Mr. Anthony S. Buck, of Bedford Street, Liverpool, has passed the second professional examination of Edinburgh University for the degree of M.B.C.M. in anatomy, physiology, *materia medica*, and therapeutics.

MR. R. E. BARNETT, B.Sc., A.R.C.S., of Chelmsford, has been appointed headmaster of the Leeds Technical School, and will enter upon his duties in September. Mr. Barnett was six years in the Royal College of Science, London, and was at that time engaged in chemical research under Professors T. E. Thorpe and W. A. Tilden.

## Business Changes.

*Notices of changes in the retail trade, and opening of new businesses, are inserted in this section free of charge, if properly authenticated.*

BOOT'S PURE DRUG COMPANY (LIMITED) have opened a new store at 161 High Street, Burton-on-Trent.

MR. ANTHONY, of St. Mary Street, Cardiff, has opened a branch in Queen Street. The shop is handsomely fitted.

MR. WM. WRIGHT, of 27 Wolborough Street, Newton Abbot, has retired from business, and Mr. W. Bennett succeeds him.

THE agency for Colgate's soaps and perfumes has been removed from Snow Hill Buildings to 46 Holborn Viaduct, E.C. (Mr. J. Morgan Richards's).

MR. ARTHUR HILL, chemist and druggist, has removed from Winchcomb Street, Cheltenham, to new premises at 98 High Street, which have been fitted up with every convenience for a high-class trade.

MR. F. W. FREEMAN, of the Park Hall Pharmacy, East Finchley, has purchased the business carried on for many years at Church End, Finchley, by Mr. David R. Evans, and will continue it as a branch.

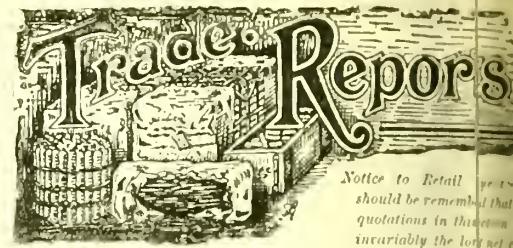
MR. HOLLOWAY, chemist, of Torquay, having disposed of his branch establishment in Union Street to Mr. Frank Fowler, the Torquay Magistrates have granted a temporary transfer of the wine-licence from Mr. Holloway to Mr. Fowler.

MR. G. W. HEAN has purchased from Mr. W. W. Price the business known as the Eastern Dispensary, Christchurch, N.Z., which has been established for twenty-one years. Mr. Hean sends us a very up-to-date booklet, headed "Looking Forward," in which he informs us of his new purchase.

MR. W. J. SAUNDERS, of Tudor Road, Cardiff, has opened a fine shop in Queen Street in the same town. It adjoins one of the entrances to the Empire Palace of Varieties, and is fitted up in an up-to-date style. Instead of the old-fashioned carboys two large coloured globes lighted with electricity are suspended from the ceiling in the window thus serving a double purpose.

**MEDICINES FOR CAIRO.**—The directorate of the Daira Sanich Government Department, Cairo, invites tenders for the supply of medicines. Tenders to be sent in by August 25. Particulars may be had upon application to the Department.

THE *Process Year-book, Penrose's Annual* (Penrose & Co., Upper Baker Street, W.C., 2s. 6d.) is a beautifully produced record of the year's progress in the many photographic processes now so generally adopted for the illustration of books and journals. Our recent Summer number was notable for the representation on the cover of the latest and most promising of these processes in colours, and in the inner pages were a great number of specimens of half-tone reproductions of photographs. The advance being made in this department of art-industry is astonishing, but some idea of it can be formed by the perusal of such a work as *Penrose's Annual*. It is worth far more than its cost as a mere collection of pictures, but to those who take interest in this development of photographic work the explanatory articles are very valuable.



*Notice to Retailers.*—It should be remembered that quotations in these columns are invariably the best and are prices actually paid and before quantities in bulk. In many cases allowances have to be made before ordinary prices can be ascertained. Frequently goods must be sorted to suit the demands of the retail trade, causing much trouble and the accumulation of rejections, not all of which are suitable even for manufacturing purposes. Further points which should be borne in mind are that the distributor generally has to bear the bulk of the charges on the goods on their way from the producer to the retailer, so that for many articles the range of quality is very wide.

## 42 CANNON STREET, E.C., Aug 12.

Our Hamburg correspondent telegraphs on Thursday afternoon that *Refined camphor*, in bolls, is firm at 21m. per kilo, which marks an advance of 5m. on the *Telegram* week. *Menthol* is firm at 13½m. to 1m. per kilo., business having been done at the former figure. *Quillaja* bark is advancing, the current price being now 45m. per 100 kilos. *Star-anise* also shows an advancing market, to-day's quotation being 180m. per 100 kilos.

Our New York correspondent telegraphs on Tuesday afternoon that *Gum chicle* is advancing, 29c. per lb. being the current quotation. *Angostura balsam* *Telegram*. *copaiba* is scarce at 45c. per lb. *asear* *sagrada* is being offered at 2½c. per lb., e.i.f. Liverpool from California by sailing-vessel. There have been arrivals of *Mexican sarsaparilla*, consisting of 30 bales of 100 lb. and 20 bales JL. Truxillo.

**ACID (CARBOLIC).**—Again somewhat firmer, although the prices show as yet little or no change: *Crystal* 39 to 40° C., offer at 7½d. per lb.; 34 to 35° C., at 6½d. per lb. *crude*, 60 per cent., 2s. to 2s. 0½d.; 75 per cent., 2s. to 2s. 3½d. per gallon. *Cresylic* remains at 1s. 1d. per gallon for 95 per cent.

**ACID (CITRIC).**—Very firm, at 1s. 2d. per lb. B.P. quality on the spot, supplies being very scarce. *Concentrated juice* offers at 12d. per pipe, f.o.b.

**ACID (TARTARIC).**—Very firmly held, at 1s. 2d. per lb. English B.P. and 1s. 1½d. for foreign brands on the spot. All varieties of tartar-material remain extremely firm in price. The prospects of the French vintage, which were excellent, have been much damaged lately by storms and floods in the southern part of the country, and this may indirectly affect the price of tartar-materials.

**ALCOHOL.**—*Methylated spirit* in quantity offers at 7d. to 1s. 7½d. per gallon, naked.

**ALOES.**—*Curaçao* is reported to be getting very scarce in New York. Good livery aloes, in gourds, is quoted at 50s. per cwt. on the spot.

**ARSENIC.**—Best white English powder may be had at 23d. 10s. per ton. The supply is still rather scanty. Mining works for dealing with about 600 tons of ores a month are being erected at Old Poldice Mine, Cornwall, by the Anglo-Peninsular Mining and Chemical Company. This company, which has Mr. R. B. Cooper, of "Cooper's Dip," for its chairman, owns a couple of mines in Portugal, and in the first place intended to have the ore brought from them to be refined at Poldice, but that idea has fallen through. The arsenic is to be obtained in Cornwall to keep the works going. Some of this is likely to come from Trelawny, in the east of the county, and the remainder from Teal

BUS. North Downs, and other places in the neighbourhood. It is calculated that this movement will give employment under roof to 150 men in the Gwennap district, and that twenty-five more hands will be engaged on the works. Some of the promoters of this company regularly made very large purchases of refined arsenic in Cornwall until recently.

BACHING POWDER firmly held at 7*l.* per ton on the spot London, and at 6*l.* 5*s.* on rail or f.o.b. Liverpool.

BAX.—Dull of sale and still tending lower. Crystals may be had at 14*s.* 6*d.*, and powder at 15*s.* per cwt. on the spot, while *Boracic acid* in crystals offers at 24*s.*, and in powder at 26*s.* per cwt. on the spot.

CAPHOR (CRUDE) shows a distinctly firmer market, although little business has been done. *Formosa* camphor is quoted on the spot at 97*s.* 6*d.*, and for arrival at 92*s.* 6*d.*, c.i.f. August-October shipment. Of *Japan* camphor, 100 culls August-October shipment have been sold at 97*s.* per cwt., c.i.f. terms; and an advance of 2*s.* 6*d.* is now asked. On the spot 102*s.* 6*d.* to 105*s.* per cwt. is quoted.

CAPHOR (REFINED).—There is no change in the price of refined, but quotations for the *German* article were lowered by  $\frac{3}{4}d.$  per lb. a few days ago; lots of 20 cwt. and more in bells or large tablets, being now quoted at 1*s.* 2*3* $\frac{1}{4}*d.* per lb. For  $\frac{1}{2}$ -ton lots the quotation is 1*s.* 3*1* $\frac{1}{4}*d.*, and for 5 to 10 cwt. lots 1*s.* 3*3* $\frac{1}{4}*d.* per lb. The English manufacturers still ask 1*s.* 3*2* $\frac{1}{4}*d.* per lb. for bells.$$$$

CARDAMOMS.—An Indian correspondent writes: "A very good business was formerly done between Ceylon with Bombay cardamoms, but the Plague put an end to it, and transferred the trade from Bombay to Calcutta. The principal buyers at that place are the chetties, and a smart business has been done between them and the native merchants during the last two months, in both Malabar and Mysore cardamoms. About 3 rs. per lb. was paid in June for Mysore, and native merchants were very eager to make advance on crops on estates. But since then there has been a sudden fall in price, and the chetties will not touch the produce now. Very few of their shipments realised any profit at all, and they are now repenting of the high prices they paid for the drug. Large stocks of Mysore cardamoms are held by the native merchants, and, with the influx of the season's new crops, it is believed there will be a further drop in prices." In London the market is firm, but there is a disposition to pay the advance asked by owners who have bought at auction.

CERIMOMILES are still falling in price. The best new Bengal flowers are now offering freely at 36*s.* to 36*s.* 6*d.* per cwt., a further decline of 1*s.* 6*d.* since last week. Second quality offers at 30*s.* to 31*s.* per cwt.

CHICHLONA.—A parcel of fifty-five bales *Maracaibo* bark has arrived and will be offered at next Thursday's auctions, when a lot of 26 packages newly arrived *Guayaquil* Crown bark will also be offered for sale.

COCA-BUTTER.—At auction on Tuesday 300 2-cwt. cases of *Cubry's* best cocoa-butter sold with little competition at a price of  $\frac{1}{2}d.$  to  $\frac{1}{4}d.$  per lb.—viz., 11*s* $\frac{1}{2}*d.* to 10*s* $\frac{1}{4}*d.* per lb.; 205 cases Dutch cocoa-butter were bought in at 10*s* $\frac{1}{4}*d.* to 10*s* $\frac{1}{2}*d.* per lb.$$$$

COLOCYNTH.—The exports of colocynth from Bagdad to Europe and the U.S.A. in 1896 amounted to 47 cases, weighing 70 cwt., and valued at 50*s.* Small sales of good pale Turkish apple are reported to have been made on the spot at 1*s.* 2*d.* to 1*s.* 6*d.* per lb. according to quantity.

CROWN OF TARTAR.—Steady. Best white French crystals offered 76*s.* 6*d.* to 77*s.*, powder at 79*s.* to 81*s.* per cwt.

ERGOT OF RYE.—Several cheap lots of ergot have recently been taken out of the market, and it appears that for fine, but wormy, *Spanish* 5*s* $\frac{1}{2}*d.* per lb. is now the current quotation. Most of this ergot cost the importers several times the present value.$

GRASSE has advanced very considerably lately, chiefly on account of the formation of a syndicate in America. *Climax* and *me* brands are now quoted on the spot at 8*s.*, to arrive 7*s.* 6*d.* c.i.f.; solid *Buffalo*, spot, 7*s.* 9*d.*; to arrive, 7*s.* 6*d.*, c.i.f.;

liquid *Chicago*, 8*s.* 1*2* $\frac{1}{4}*d.*, and *Buffalo*, 8*s.* 3*d.* spot; to arrive 8*s.* 3*d.* per lb., c.i.f. terms.$

GLYCERIN.—The prices of *Schering's* water-saponified glycerine have been reduced 2*s.* per cwt. all round, double distilled 1*2* $\frac{1}{2}60 being now listed at 65*s.* per cwt. This is only a slight concession towards the acknowledgment of the depreciation of the article on the part of the makers. Ordinary *German* brands offer at 53*s.* to 54*s.* per cwt. for double distilled, s.g. 1*2* $\frac{1}{2}60, and the lower of these prices has been paid in more than one instance. The English makers are still underselling their continental competitors.$$

HONEY.—A fair business has been transacted in *Californian* at 35*s.* to 40*s.* per cwt., according to quality (for fine white 42*s.* per cwt. is asked). For *Chilian* the quotations run from 24*s.* to 28*s.* per cwt. New *English* and *Irish* honeys are now on the market. The prices show no alteration.

INSECT-FLOWERS are reported much steadier from Trieste, where within the past fortnight over 600 ewt. have been sold to American firms. New-crop open flowers offer at 72*s.* 6*d.* to 76*s.* per cwt., c.i.f.; half-closed at 80*s.* to 83*s.* per cwt., c.i.f.

IPECACUANHA.—The *Mugdalene* brought 84 bales of *Rio* root from Monte Video at the end of last week. There have been a good many inquiries in the market, but the trade are generally awaiting next week's auctions. From 6*s.* 3*d.* to 6*s.* 6*d.* per lb. is generally asked for good quality. In *Carthagen* root there is no alteration whatever.

JALAP.—Fairly steady, with sales of unworked *Vera Cruz* at 5*d.* per lb.

LACTUCARIUM.—The price of *German* has been advanced to 12*s.* 6*d.* per lb., and is not unlikely to go still higher.

MENTHOL is firmer. On the spot 6*s.* 3*d.* per lb. is said to have been repeatedly paid, while for shipment August-September the quotation is 6*s.* 2*d.* per lb., c.i.f. There is a fair quantity in second hand, but it looks as if prices will advance still further.

OIL (COD-LIVER).—Although very little business is doing it is said that the tone of the market is slightly firmer. For best non-congealing *Lofoten* oil from 65*s.* to 70*s.* per barrel, c.i.f., is quoted, but on the spot there is also a seller at 75*s.* About ten casks of good ordinary *Newfoundland* oil have lately been sold at 2*s.* per gallon.

OILS (ESSENTIAL).—Genuine *American sassafras oil* may now be had at 1*s.* 7*d.* to 1*s.* 8*d.* per lb. on the spot, which is again easier. *Spearmint* offers at 10*s.* for *HGH*, and 6*s.* 6*d.* for bulk oil, c.i.f. terms. *American Peppermint oil* is unchanged, but *Japanese* oil is again firmer, 4*s.* 1*2* $\frac{1}{4}*d.* to 4*s.* 3*d.* per lb. being asked for 40 per cent. oil on the spot, and 2*s.* 10*s* $\frac{1}{2}*d.* to 3*s.* per lb. for demerolised. The quotations from the East are also higher. Oil of *Citronella* unaltered. *Lemongrass* held for 2*s* $\frac{1}{2}*d.* per oz. on the spot. To arrive no business is reported. *Italian* oils are fluctuating. *Bergamot oil* is very firm, with a higher tendency. Some agents, in fact, will not sell at last week's quotations. The *Oil of lemon* season is now nearly at an end and slightly easier rates would be taken in some quarters. New-crop is already being offered on speculation, for shipment in November at 4*s.*, December, 3*s.* 9*d.* per lb., c.i.f. for "fine pure" quality. We understand that *Pears' sandalwood oil* is selling in 2-ewt. lots at 10*s.* 6*d.* per lb. *Oil of star-anise* is full maintained in price, 8*s.* per lb. having been paid repeatedly on the spot. Quotations from China are still very high, 7*s.* 6*d.* to 7*s.* 7*d.* per lb., c.i.f. terms, being the current asking prices for July-August shipment.$$$

OPIUM.—In *Persian* gum the market is rather easier, with sales of medium manufacturing qualities at 9*s.* to 9*s.* 6*d.* per lb. For fine opium 10*s.* to 10*s.* 3*d.* per lb. is still nominally asked, while common grades are quoted at from 8*s.* to 9*s.* per lb. *Turkish* opium is very quiet, with small sales and a very meagre stock. Quotations unchanged.

ORRIS-ROOT is very dull and low in price. The new crop, which is said to be extremely large, is now being gathered, and offers freely at 43*s.* per cwt., c.i.f., for picked *Florentine*.

QUICKSILVER.—Lower. The importers reduced their price to-day by 7*s.* 6*d.*—viz., to 6*s.* 17*s.* 6*d.* per bottle. Second-

hand holders are nominal. The Spanish Government propose to contract a loan, either in sterling, francs, or pesetas, with the general guarantee of the State, and the special security of the quick-silver mines of Almaden. If the loan should not be negotiable privately, the Government will invite tenders, in which case fifteen days' notice will be given in the *Madrid Gazette*. The decision as to the acceptance of tenders rests with a committee of Government officials.

QUININE.—Several small sales, aggregating about 5,000 oz., were made early in the week at 9½d. per oz., for fair second-hand German bulk, showing a firm market. The price of the Auerbach brand has been raised to 10d. per oz.; other foreign agents have no definite prices, although Brunswick quinine was erroneously reported in one quarter to have been raised to 10d. per oz. Early in the week the B. & S. agents sold two 1,000-oz. lots to druggists at 9d. per oz., but since then they have stopped offering. They refused to deal with any but druggists, or to sell more than 1,000 oz. to any one firm. On Saturday a Mincing Lane broker went around trying to buy 5,000 oz. at 9½d., but he appears to have been unsuccessful. *Howards'* price is unaltered, but *Whiffen's* is reported to have been raised. *Sulphate of cinchonidine* has lately been in strong demand for India, and is quoted higher.

RHUBARB.—The *China* has brought 60 cases, and the *Ulysses* 11 cases, of rhubarb from Shanghai. Most of this is said to have already been sold to arrive. Privately a fair jobbing trade is doing. Medium round *Shensi* is reported to have been sold at as high a price as 3s. per lb., while for medium round *Canton* 1s. 5d. is said to have been paid. We also hear of business in *High-dried*, at 1s. 1d. to 1s. 2d., and rough coat at 9½d. to 9½d. per lb.

ROSE-LEAVES are in fair demand and tending higher. Prices are about 1d. per lb. dearer than when we quoted the article last, *Dutch* leaves being now held for 1s. 1d. to 1s. 2d. per lb., *French* for 1s. 3d. to 1s. 4d. per lb. *English* leaves are scarce and dear.

SENEGA-ROOT remains dull of sale. On the spot 1s. 1d. per lb. is still asked for good quality, but new-crop offers at 10½d. to 11d. per lb., c.i.f. terms, from New York.

STAR ANISE.—Much dearer. There is now only one holder on the spot, but asks 9s. per cwt. for genuine *Chinese*, while the quotation from *China* is 9s. per cwt., c.i.f. terms.

TONCA BEANS remain extremely quiet, and no business has been reported lately. Good bright *Ingostura* are quoted at 7s. to 8s. per lb.; good frosted *Pará* at from 1s. 7d. to 1s. 10d.; fair black, partly foxy mixed at from 1s. down to 5d. per lb.

WAX (BEES').—Yellow *Bombay* offers on the spot at 5s. per cwt., while for good bright *Madagascar* 6l. 5s. is asked. There are large stocks of all kinds, and for the present the market is neglected.

#### The Market in Heavy Chemicals.

There are not many changes to report in the heavy-chemical market this week, but there is an improved and increasing demand for most products. In most cases stocks are not particularly heavy, and values, although materially unchanged, remain very firm. *Caustic soda* has continued to move well, and prices are firm, but there does not seem to be much prospect of a permanent advance in prices. Present quotations are 60 per cent. cream, 6l. 2s. 6d.; 60 to 62 per cent. white, 6l. 2s. 6d. to 6l. 5s.; 70 to 72 per cent., 7l. 2s. 6d. to 7l. 5s.; 74 per cent., 8l. 2s. 6d. to 8l. 5s., f.o.b. Liverpool, and 76 to 77 per cent., 8l. 15s. to 9l. f.o.b., Tyne or Liverpool. *Bleaching-powder* is in good demand for both home and export, at 6l. 5s. to 6l. 10s. per ton for softwood casks on rails, and 6l. 12s. 6d. to 7l. f.o.b. Liverpool. *Brown acetate of lime* meets with better inquiry, particularly for home, and values tend slightly upwards. *Chloride of barium* is a shade lower, at 6l. 17s. 6d. to 7l. 2s. 6d., f.o.b. Precipitated *Carbonate of barium* moves steadily. *Mineral Carbonate of barytes* very firm at 60s. to 100s. per ton, f.o.b. in bulk, according to percentage and quantity. Precipitated *Sulphate of barytes* moves steadily, and stands unchanged at 7l. to 7l. 5s. f.o.b. *Hydrate of barium* is dull at 13l. to 14l. per

ton, free on rails, according to quantity. *Crystal alum* is only in moderate request, and price is a trifle lower, imp 4l. 12s. 6d. to 4l. 17s. 6d.; ground, 5l. 7s. 6d. to 5l. 10s. *Sulphate of ammonia* quiet; 254 tons were expected from Leith last week. A heavier inquiry is to be noted for forward delivery. *Sulphate of copper* unchanged, but the firmer. *Benzols* quiet. *Soda crystals* in heavy request. *Salteake* steady. *Aniline oil* and salts have a rather better tone, and values tend upward. White powdered *Asafoetida* in demand. *Prussiate of potash* firm. *Sulphocyanides* dull. *Silicates of soda* steady. *Phosphorus* selling freely: ticks, 2s. 1d.; wedges, 2s.; amorphous, 2s. 8½d. per lb.

#### The Liverpool Drug-market.

Our Liverpool correspondent, writing on August 11, reports that the demand for *Castor oil* has improved during the week, and large business has been done at 37½d. to 38d. per lb. for good second *Calcutta*; first-pressure French at the same price, and second-pressure 3½d. to 3½d.; Madrid is held for 3½d. Important transactions have passed for forward delivery. *Guinea grains* are still firmly held for 10s. and in small supply. In *Acacia gums*, Soudan imports have met with only a moderate amount of attention, few small transactions being concluded at 67s. 6d. per cwt. for fair hard amber; medium kinds have been neglected the inquiry being only of a limited nature, and no sale of moment have taken place. *Sulphate of copper*, for spot delivery, is flat at 15l. 15s. to 16l. per ton. *Canary-oil* is distinctly hardening, and 24s. 6d. per quarter is quote for good bright Turkish. *Bee蜡* meets with ready buyers, 30 packages of *Gambia* (W.C.A.) fetching 5l. 15s. per cwt. *African ginger* is steady and unchanged, at 17s. 6d. to 18s. per cwt. for good root.

#### The Hamburg Drug-market.

Our Hamburg correspondent writes, on August 12:—“Business in general shows some slight signs of improvement, and there has been an advancing market in many articles. *Anise-seed* is firm, prime Russian seed quoted to-day 32m. per 100 kilos. *Camphor (refined)* is a little firmer; there are no sellers below 255m. per 100 kilos, while the refiners ask 260m. per 100 kilos to-day. *Cassia lica* is steady, new crop is held at 74m., fine old *Cisia* at 80m. to 90m. per 100 kilos. *Cinnamon* is quiet, August-September shipment from Ceylon is offering at equal to 9½d. per lb., c.f. Hamburg. *Ergot of rye* firm at 95m. to 97½m. per 100 kilos, with a little business. *Cumin-seed (Malta)*, new crop for shipment, 40m. per 100 kilos. *Caraway-seed* very firm. Holland has raised its prices considerably, and to-day's quotation is 40m. to 41m. per 100 kilos. *Citric acid* is firm at 255m. per 100 kilos. *Acacia* remains firm; there is not much offering. *Acropodium* is also firmer, 265m. being asked to-day. *Methyl alcohol* firm; business has been done at 13½m. to 13¾m.; to-day holders ask 13½m. per kilo. *Oil (Castor)* firmer since last week; spot delivery is very scarce at 64m. per 100 kilos, while August shipment is offering at 62m. per 100 kilos or French oil of first pressing.

#### FEDERATION OF CHEMISTS' ASSOCIATIONS.

Two meetings of the officials of the Federation of Chemists' Associations were held at Glasgow during the Conference. Mr. W. L. Currie, the President of the Federation, urged that the time had come for an active propaganda if they were to justify the existence of the Federation. It was agreed that several questions should be submitted to all associations in the kingdom for discussion in the course of the winter session. Amongst them were, first, the desirability of Associates of the Pharmaceutical Society being eligible for membership of the Council; second, whether an Intermediate Examination for assistants should be instituted. Other questions were submitted and approved for inclusion in winter programme.

The tone of the meeting was distinctly favourable to the continuation of the Federation, and it was agreed that work should be more actively carried on in future. Mr. Currie was re-elected President, and Mr. Darton Gibbs, of Birmingham, Hon. Secretary.



writing letters for publication, correspondents should adopt concise, not abbreviated, style. They are requested to write on one side of the paper only. Letters, with or without a nom-de-plume, must be authenticated by the name and address of the writer. Queries should be written on separate pieces of paper, and the regulations printed under the sections to which they apply should be strictly observed.

#### Enema-cupboards.

R.—The enema-cupboard figured in Mr. Caldecott's notes, p. 184 of Summer issue, the idea for which is claimed by Mrs. Reynolds & Branson, Leeds, is exactly similar to one I'd made for me when in Kelso, and which can still be seen in the Medical Hall there. I had it made in 1888, and find it very useful.

Yours truly.

A. TURNER.

#### Advertising on the "Foudroyant."

R.—Will you kindly allow me to make an important objection in the case Cobb v. Beecham and Challoner, tried at Liverpool Assizes, which appeared in your issue of Augt 7? Judgment was not given against both defendants. On the contrary, as Mr. Challoner had paid into court a larger sum than the jury awarded as damages to the plaintiff, judgment with costs against the plaintiff was entered in Mr. Challoner's favour, and a special jury was certified for the application of his counsel. The stay of execution was obtained by my counsel, who on my behalf denied all liability, to enable me to prosecute an appeal from the judgment.

I am, dear Sir, yours truly,

THOS. BEECHAM.

#### A.P.T.A. Black-list Man Reports.

R.—As one who has been over six months upon the black list of the P.A.T.A., probably my experience may be of some interest to your readers. In the first place, I may say I made it a rule never to be undersold by any competitor as regards patent medicines, and it was owing to several customers complaining of Scott's Pills being sold at 10d. per box elsewhere, that I determined to sell at the same rate, to risk the terrors of the much-talked-of P.A.T.A. Naturally, I on received a communication from Mr. Glyn-Jones, in which he stated that supplies of all goods upon P.A.T.A. list would be cut off if I did not sign the agreement. I decided to do so, and quietly accepted his challenge, and I am happy to state that so far I have no reason to regret it. Or Mr. Jones's information I may say—

I make bold shows of protected articles in my windows at post-prices.

I always hold about six months' supplies.

I have no difficulty in obtaining these goods, and within the last few days I have received two lots of protected articles from wholesale houses, ordered in ordinary courses of business with other patents.

Several makers of protected articles will supply me with goods, therefore what becomes of Mr. Jones's threat to cut off supplies?

If Mr. Jones attempts "to buy me out in a week," I shall raise prices to a shade under protected price and thereby receive a good profit.

I have purchased Scott's Pills at 10d. from several grocers and chemists here, including one of Mr. Jones's former local secretaries.

It is possible for those upon the black list to come to terms with certain makers upon the P.A.T.A. list.

Conclusion, I call upon Mr. Jones to make good his vain boast, re Scott's Pills advertisement, or withdraw the same.

Yours truly,

RED DRAGON. (190/23.)

#### Additional Centres for Examinations.

R.—It is to be hoped that as the Council of the Pharmaceutical Society are endeavouring to increase the fee for

the Minor examination to 10*l.* 10*s.*, they will also provide additional centres for conducting the same, so as to lessen the expense of candidates attending, especially as some days elapse between the written and practical portions of the examination.

As regards Scotland, Section 9 Pharmacy Act, 1852, provides "that the examiners may meet in Edinburgh or Glasgow, or such other place or places as the Council may think desirable." Glasgow would be a convenient centre, and possibly prevent the unfortunate misunderstandings existing there between pharmaceutical and medical assistants.

Yours truly,

DEVONIENSIS. (188/19.)

#### Irish Druggists and the Pharmaceutical Society.

Mr. J. E. O'Neill, of Maghera, sends us for publication a copy of a letter he has sent to the President of the Pharmaceutical Society of Ireland in reply to the circular asking Irish chemists and druggists generally to subscribe to the Society. Mr. O'Neill says he would "be pleased to again become an associate of the Pharmaceutical Society if he could discover any real benefit it confers on chemists and druggists or registered druggists." At present, he points out, there is only one druggists' representative on the Council, and in reply to the charge that is caused by their own neglect, Mr. O'Neill replies:—"When a large number of the body to which I belong became members of your Association, in the hope of inducing your members to treat us with a little generosity, you know how your body acted towards us when the election of members of your Council took place. When you ask us for our guineas, we cannot help looking back on the consideration we got for them in the past, and when we do, I regret to say, confidence is not inspired. When a pharmaceutical chemist becomes a member of your Society he is allowed the privilege of styling himself 'J. Brown, M.P.S.I.' but when a chemist and druggist pays his guinea he remains plain 'John Jones.' In England when chemists and druggists become associates of the Pharmaceutical Society they are at liberty to style themselves 'A.P.S.' I think if such an inducement were held out to our body, together with a promise of fair representation on the Council of the Pharmaceutical Society, it would prove a strong inducement to chemists and druggists and registered druggists to become members. By showing a little consideration for the body to which I belong, I admit your Society could be a made a great tower of strength in protecting and safeguarding our common interests. Show us by fair and generous treatment that you recognise chemists and druggists and registered druggists as your brothers and not your slaves, then you shall not only have our pecuniary assistance, but our cordial co-operation in anything tending to advance the best interests of the trade."

#### Poor-law Dispensers.

SIR.—I shall be grateful if you will grant me space to discuss the position and remuneration of Poor-law dispensers with suggestions as to their amendment. In the 1876 Annual Report of the L.G.B. it is stated that the Board acknowledge the value and onerous nature of our duties—"That the position of Poor-law dispensers is one of great importance, having most responsible duties assigned to them." Yet the ancient maximum scale of salary, 140*l.* per annum for whole time and no prospect of promotion, remains the same as when no evidence of qualification was required, or the Pharmaceutical examinations were not at the high standard of perfection that exists now.

The inequitable condition of Poor-law dispensers, as compared with other officers in the same service, seems an anomaly, and the more mysterious the more we investigate it. Take our previous training—viz., examination in general education, three years' apprenticeship, professional education, and general expense incurred in getting our qualification as a dispenser (chemist)—and compare the remuneration with that of other officers. A relieving officer need not have (and generally has not) any previous knowledge of the duties he undertakes. It is sufficient that he can read and write fairly well, yet he invariably commences his apprenticeship at a salary of 140*l.* per annum, increasing by annual increments of 5*l.* to 165*l.* per annum, and, finally, at the end of fifteen years' service, to 180*l.* per annum. Again, the first

assistant-clerk, a subordinate officer, in most cases has a maximum of  $200l.$ , with a chance of promotion to clerk. In the same way a workhouse master is much better off than the dispenser, although he is invariably recruited from such sources as gate-porter pantryman, labour-master, &c. Indeed, many a gate-porter seems to me better remunerated than the dispenser.

This week Mr. Chaplin, the President of the L.G.B., received by appointment a deputation of relieving officers (sent by the Relieving Officers' Association), who presented a petition asking that their scale of remuneration should be—a commencing salary of  $140l.$  per annum, increasing by annual increments of  $10l.$  to a maximum of  $230l.$  per annum. His reply, I understand, was favourable. There is no doubt dispensers are too satisfied. They are contented to look on at the energy and more prosperous conditions of other officers who have energy and reap the benefit of it. I would suggest that a Poor-law Dispensers' Association be established for the purpose of investigating the best means of improving our position and remuneration; that a small annual membership-fee be required to pay for an office in a central district, stationery, and other incidental expenses; that the members meet monthly or bi-monthly to conduct business; that a treasurer, secretary, and chairman be appointed by votes from amongst the members themselves; and that, lastly, but not least, if the association is to be a success, unanimity, sincerity, and solidity are imperative, especially as we are not a numerous body. Thanking you in anticipation,

I am, Sir,

August 6. A (VERY) POOR-LAW DISPENSER. (1897/16.)

## MISCELLANEOUS INQUIRIES.

We reply to our subscribers and their employés only; queries must, therefore, be authenticated by the name and address of the subscriber. When more than one query is sent write each on a separate piece of paper. When a sample accompanies a query full particulars regarding the origin and use of the sample must be given, and the name of the querist should be placed on the sample. Queries are not replied to by post.

182/58. *James.*—There is a method of Destroying the Life of Trees by boring a hole into the trunk in a downward direction and filling with sulphuric acid, but you had better recommend that the trees be cut down, as a dead tree is only an eyesore.

184/62. *F. D.* (Budapest).—Wheat-dressings.—Beside sulphate of copper, for destroying smut in seed-wheat, sulphates of zinc and iron, quicklime, and arsenic are used. The quicklime is used in the proportion of 5 lbs. to a sack of wheat. The lime is slaked and made into a milk with water, and mixed with the wheat. The sulphates of zinc and iron are used in the proportion of 1 lb. to a sack. The quantity of arsenic to use is 4 oz. It has no advantages over the other more harmless chemicals.

184/69. *Unguentum.*—We do not reply to anonymous queries.

184/11. *A. L. J. F.*—We suspected nux vomica in one of the samples, but failed to get the strychnia reaction. We also searched for atropia, but with negative results.

186/41. *Halcyon.*—Our analyst reported that the sample was impure boric acid. Why not test it yourself? It is such a simple matter.

182/63. *Sassenach.*—There is no one book which exactly meets what you want. On American pharmacy, "The National Dispensatory," 30s.; on French pharmacy, Dorval's "L'Officine," 21s.; on German pharmacy, Hager's "Pharmaceutische Praxis," 84m., are standard works.

186/50. *W. B. F.*—(1) Oil of orange-flowers is oil of neroli. (2) "Cologne spirit" is the best rectified spirit. The first method you mention for making essence from pomade would give a stronger product than the latter.

182/65. *Eucalyptus.*—Bearing in mind the last question in the Preliminary arithmetic paper in July, you had better

be on the safe side and give your pupil a drilling in the square root and its extraction. There has been no official intimation of any change.

187/11. *Stannus.*—The Tonic would be represented by such a formula as this:—

|                 |     |     |     |           |
|-----------------|-----|-----|-----|-----------|
| Quinin. sulph.  | ... | ... | ... | gr. xij.  |
| Ac. sulph. dil. | ... | ... | ... | ij. xx.   |
| Tr. gent. co.   | ... | ... | ... | ij. xx.   |
| Tr. nuc. vom.   | ... | ... | ... | ij. ij.   |
| Spt. chlorof.   | ... | ... | ... | ij. ij.   |
| Aq. dest. ad    | ... | ... | ... | ij. xxiv. |

Mix and filter bright.

184/73. *Kimia.*—The Hair-dye is approximately as follows:—

|                  |     |     |     |         |
|------------------|-----|-----|-----|---------|
| Ac. pyrogall.    | ... | ... | ... | ij.     |
| Ac. nitric. dil. | ... | ... | ... | ij. ij. |
| Ess. bouquet     | ... | ... | ... | ij. ij. |
| Spt. tenuior. ad | ... | ... | ... | ij. ij. |

M.

This makes a brown dye; if wanted darker increase the pyrogallic acid.

184/33. *Hair-dye.*—Your sample of Dark Brown Hair-dye is too far decomposed for accurate analysis. The following is a good formula for a similar dye:—

|                 |     |     |     |         |
|-----------------|-----|-----|-----|---------|
| Ac. pyrogall.   | ... | ... | ... | ij. ij. |
| Sodii sulphit.  | ... | ... | ... | ij. ij. |
| Spt. vini rect. | ... | ... | ... | ij. ij. |
| Aq. dest.       | ... | ... | ... | ij. ij. |

Dissolve the acid in the spirit, the sodium sulphite in water, and mix.

186/39. *Exon.*—We do not know the article, but you can get us a sample we will examine it.

187/32. *W. D.*—(1) Potass. sulphate would increase the purgative action of deco. aloes co. (2) Ext. belladonna in small doses is sometimes used instead of ext. hyoscyamus to prevent the griping caused by coloeynth.

187/65. *Dispenser* points out that in the formula for nuc. vom. (page 183 of Summer issue) given as an example alternative system of weights to be adopted in the new *Pharmacopœia* there is a misprint—12 fl. oz. should read 11 oz.

183/17. *Myrrh.*—See *C. & D.*, October 17, 1893, page 574.

188/8. *W. J. H.*—Pines or Pinones used by vegetarians as a food are the seeds of the cones of various pines, *Pinus pinca* (the common stone-pine).

188/49. *Useful.*—*Opalescent Ammonia.*—We give a formula as recently as June 26, page 1013.

182/56. *S. Hogg.*—To Bleach Skin Round the eye of a valuable Pigeon, reddened by age, try the occasional application of a strong "Lapis Divinus" pencil, and patting with peroxide-of-hydrogen solution.

## Next Week.

The Chemists' Exhibition, organised by the proprietors of the *British and Colonial Druggist*, will be opened at the Garden Theatre, London, on Monday next, August 17, at 1 P.M., and will remain open until Friday, August 21, at 10 P.M. A number of the exhibitors announced in this number what they are going to show.

The Proprietary Articles Trade Association will hold their first dinner at the Holborn Restaurant, on Thursday, August 19. Tickets 7s. 6d. each, or a double ticket for a lady and gentleman, 12s. 6d. Morning dress is stipulated.

The Eighth International Pharmaceutical Congress will be opened at Brussels on Saturday, August 14, and will be held in the University Buildings until Thursday, August 19, when the proceedings will be closed with a banquet at the Duyk, 102 Chaussée de Wavre, Ixelles, Brussels, is the treasury of the Congress.

**VIROL**

is an Ideal Form of Fat Food for Children and Invalids.

It is composed of Red and Yellow Bone Marrow, combined with the fat and proteids of raw eggs, active Malt Extract, &c., in a ratio in accordance with physiological principles, and is a very pleasant form of administering natural Iron and Fat.

**MARROL**

is a most agreeable substitute for Cod Liver Oil for Adults.

It is prepared from Ox-bone Marrow, Extract of Malt, &c., and does not cause dyspepsia or any digestive derangement.

As fatteners both VIROL and MARROL supersede Cod Liver Oil, whilst their attractive flavour enables them to be eaten on toast, or in a variety of ways, replacing unpleasant medicines by a Food Luxury.

MANUFACTURED BY

**BOVRIL LIMITED, LONDON**

*Food Specialists, Hospital Purveyors, Contractors to Her Majesty's and Foreign Governments, &c.*

CHAIRMAN—THE RIGHT HON. LORD PLAYFAIR, G.C.B., LL.D.

CONSULTING CHEMIST—PROFESSOR SIR JOHN FRANKLAND, D.C.L., F.I.C., CORR. MEM. FRENCH INST.

**CRYSTAL PALACE JOHN BONDS GOLD MEDAL MARKING INK**

CHEAPEST, BEST, AND MOST SALEABLE ARTICLE IN THE MARKET.

GIVE AWAY and enclosed with every 6d. and 1/- Bottle a voucher entitling Purchasers to their Name or Monogram Rubber Stamp for Marking Linen, Stamping Paper, and also FREE with enlarged 1/- Blue Wrapper Ink an Improved Linen Stretcher. NO EXTRA CHARGE WHATEVER.

DISPLAY IN WINDOW AND COUNTER, AND YOU WILL FIND YOUR SALE INCREASED TENFOLD.

Wanted, particulars from those issuing Lists and Annuals for which Advertisements are taken.

WHOLESALE & EXPORT DEPOT—75 SOUTHGATE ROAD, LONDON, N.

LARGEST SALE OF ANY MARKING INK IN THE WORLD.

**PREMIER  
VINOLIA  
DENTIFRICE**

eps the  
eth  
Ivory  
White.



6d. 6d.

Soothing  
to  
Tender  
Gums.

**BLONDEAU  
CARBOLIC  
TOOTH  
POWDER**

Cleanses  
the  
Teeth  
Beautifully.

6d.



6d.  
Aromatic,  
Floral,  
Refreshing.



6d. 6d.

ROUND METAL BOXES & GLASS BOTTLE.

3/8 Per Dozen.

THE ABOVE TRADE PRICES ARE SUBJECT TO USUAL DISCOUNTS.

**BLONDEAU ET CIE., Malden Crescent, LONDON, N.W.**  
CITY SHOWROOMS—15 and 18 ALDERMANBURY, E.C.

# DUNCAN, FLOCKHART & CO.

EDINBURGH and LONDON.

## GELATINE CAPSULES (1,000 Varieties.)

CASCARA CAPSULES. EASTON SYRUP CAPSULES.  
GREGORY POWDER CAPSULES.

## BLAUD PILL CAPSULES.

We guarantee our One, Two, and Three Pill Capsules to be equal respective in Ferrous Carbonate to one, two, and three freshly-prepared Blaud Pills. They have also this distinct advantage over Pills, that they neither oxidise nor halogen.

London Branch : 38 & 39 SNOW HILL, E.C.

Telephone No. 65282, Holborn.

ESTABLISHED  
1772.

## HENRY'S CALCINED MAGNEA

Continues to be prepared with scrupulous care in the greatest chemical purity, by

**Messrs. THOMAS & WILLIAM HENRY, 11 East Street, St. Peter's, Manchester,**  
And is sold in bottles, authenticated by a Government Stamp bearing their Name. Trade Mark, "Henry's Calcined Magnesia."

Price 4s. 6d. or 2s. 9d.

NEW YORK—MESSRS. W. H. SCHIEFFELIN & Co., William Street. PARIS—MESSRS. ROBERTS & Co., 5 Rue de l'Alpe

## BARRON. HARVEYS & CO.

WHOLESALE AND EXPORT DRUGGISTS,

GILTSPUR STREET, LONDON, E.C.

Beg to inform their friends and the Trade generally that, being Sole Proprietors of the Business

BARRON, SQUIRE & CO., BUSH LANE

and also the various Formulae of the Special Preparations of

JAMES BASS & SONS, HATTON GARDEN

they are prepared to execute orders for the same, and pledge themselves to supply them in all their integrity.

SPECIMENS OF THESE PREPARATIONS have REMAINED in the MUSEUM of KEW GARDENS during 28 YEARS  
WITHOUT DETERIORATION.

**"SWEET" PEARL COATED PILLS.  
TINCTURES, ETC., IN BOND.**

CRESCENT

BRAND.



# BICARBONATE OF SODA,

REFINED AND RECRYSTALLIZED.

PURE AND CHEAP.

#### ANALYSIS.

|                        |     |     |     |   |   |       |
|------------------------|-----|-----|-----|---|---|-------|
| Bicarbonate of Soda    | ... | ... | ... | — | — | 97'20 |
| Mono Carbonate of Soda | ... | ... | —   | — | — | 1'90  |
| Sulphate of Soda       | —   | —   | —   | — | — | trace |
| Chloride of Sodium     | —   | —   | —   | — | — | '035  |
| Moisture               | ... | ... | —   | — | — | '82   |
| Insoluble              | ... | ... | —   | — | — | nil   |

# PURE ALKALI,

GUARANTEED 58 DEGREES.

EQUAL TO 98 PER CENT. OF CARBONATE OF SODA.

Most economical form of Soda for the use of Printers,  
Bleachers, Dyers; Glass, Paper, and Soap Makers.

# CONCENTRATED CRYSTAL SODA

(Sesqui-Carbonate).

By far the Purest and Cheapest form of Washing Soda.

Only 1 lb. of Concentrated Crystal Soda required to do the work of 2 lbs. of Washing Soda.

# SODA CRYSTALS

OF THE FINEST QUALITY.

CAUSTIC SODA. BLEACHING POWDER.

# BRUNNER, MOND & CO., LIM.

*Manufacturers of Soda by the Ammonia Process,*

**NORTHWICH, CHESHIRE.**



# POWDERED TARTARIC ACID

Guaranteed to pass the British Pharmacopœia Test.

## Powdered Cream of Tartar, 99/100%

at UNDER *pro rata* price of the ABSURD British Pharmacopœia Standard

Delivery free United Kingdom in suitable quantities. Samples and Prices from

**KIRKPATRICK, BARR & GUTHRIE, 4 CULLUM ST., LONDON, E.C.**

## FORMALDEHYDE.

*Original Make.*

SOLE AGENTS FOR THE UNITED KINGDOM—

**J. NORRENBERG & CO.**  
CANNON STREET BUILDINGS,  
139 CANNON STREET, LONDON, E.C.

MANCHESTER DEPOT—

**D. LAWTON & CO.**  
TREVELYAN BUILDINGS,  
52 CORPORATION STREET, MANCHESTER.

INDIA.

**PEAKE, ALLEN & CO.**  
CHEMISTS, DRUGGISTS,  
AND  
GENERAL MERCHANTS,  
LUCKNOW, OUDH, INDIA,

Possess exceptional facilities for the introduction of NEW SPECIALITIES, Patent Medicines, Druggists' Sundries, Perfumery, &c.

## SCOTTISH ACID & ALKALI (D. (LIMITED).

Mr. R. H. STEEDMAN, Managing Director  
MANUFACTURERS OF

**RESUBLIMED IODINE.**

PURE IODIDES of POTASSIUM & SODIUM,  
**IODOFORM.**

**Commercial Sulphuric Acid.**

Registered Office—82 W. REGENT STREET, GLASGOW.  
Works—Longford Chemical Works, KILWINNING,  
AYRSHIRE.  
Sole Agents—KIRKPATRICK, BARR & GUTHRIE, 4 Cullum  
Street, LONDON, E.C.

*Special Quotations on application.*

## POTASS. CYANIDE

(From 30 % to 98 %).  
**YELLOW PRUSSIATE OF POTASH,**

Nitrate of Silver, Chloride of Gold,

AND OTHER

## CHEMICALS

FOR PHARMACEUTICAL, PHOTOGRAPHIC, AND  
TECHNICAL PURPOSES.

**FREDK. BOEHM**, 16 Jewry Street, LONDON.  
AGENT FOR THE  
Deutsche Gold-und Silber-Scheide Anstalt, Frankfurt/M.

A FEW OF

# T. HOWARD LLOYD & Co.'S

## SPECIALITIES FOR THE TRADE.

### THE LEICESTER

#### Soluble Pearl-coated Pills and Granules.

The original LEICESTER make.  
Quality the very best.  
Prices equal to any in the market.  
Sales always increasing.  
Private Formulae prepared.

### "BICONICAL" HORSE BALLS.

Gelatine Capsuled with name on for orders of one gross.  
The most convenient form for administration.

### COMPRESSED FLOWERS." The new Cachou.

"A bright idea."  
Heliotrope, Jasmine, Lily of the Valley, Lavender,  
Wood Violet, Opopanax, Rose, &c., &c.  
In 1-lb. bottles, elegantly labelled, or put up in  
slide boxes or screw-top bottles.  
Samples and price on application.

### THE LATEST NOVELTY IN SULPHUR TABLETS: Yellow and Pink Sulphur Trochettes.

"A decided hit."  
The colouring matter used is quite harmless.  
Write for free samples.

### MAGNES. CIT.

We manufacture four qualities of this—viz., A, B, C, and D.  
In bulk, or in 1-lb.,  $\frac{1}{2}$ -lb., and  $\frac{1}{4}$ -lb. round bottles, corked.  
Also in blue flats, lettered, patent stoppered or  
wood-top corks.  
Also flavoured and tinted—Raspberry, Lemon, or  
Lime Fruit.

### MALTO PETROLEO."

This preparation consists of the purest Extract of Malt, combined with 33 per cent. of purified Petroleum Oil.  
Purified Petroleum is a most agreeable and effective substitute for Cod Liver Oil, largely prescribed by the most eminent physicians, and its chief advantage is that it is almost without taste or smell, is readily assimilated and taken with avidity by Ladies and Children.  
Put up in 1-lb. bottles.  
Samples and price on application.

SAMPLES AND FULL PRICES ON APPLICATION. SPECIAL TERMS TO SHIPPERS.

have secured a Stand at the forthcoming Exhibition, where we shall show samples of all our various Specialities, including the above.

**T. HOWARD LLOYD & CO.,**

WHOLESALE AND EXPORT DRUGGISTS  
AND MANUFACTURING CHEMISTS,

86 High Street and Town Hall Lane, LEICESTER.

### PEARL-COATED DOG PILLS in boxes.

One of the most saleable lines introduced.  
In boxes containing 1 doz., 3/4, or 6d. packets.  
Particulars on application.

### BIRD and POULTRY PILLS in boxes.

A similar line to our Dog Pills.  
Sample and prices on application.

### THE "COLLOID" CAPSULES.

The best in the market.  
100 formulae on application.

### COMPRESSED TABLETS of pure drugs.

For internal and Hypodermic use.  
In bulk or put up in bottles for retail sale, and with or without our name.  
List on application.

### BRONCHOLS.

The most effective Cough Lozenge yet introduced.  
Especially useful in obstinate and long-standing coughs.  
The Label has been passed by the authorities of Somerset House as free from Stamp Duty.  
In tins to retail at 6d. and 1s. Samples free.

### EFFERVESCENT FRUIT SALINE or Salt of Health.

In bulk or put up in 6-oz. or 8-oz. Patent stoppered bottles, with and without cartoon and wrapper. Also in 4-oz. tins.  
Fruit saline, flavoured and tinted—Raspberry, Lemon, or Lime Fruit in white glass bottles.

### THE NEW FRUIT SALINE GRAINS.

A very decided improvement upon the ordinary Fruit Saline, being in minute granules, effervescent rapidly, and keeping much better than powder.  
In 6-oz. white patent stoppered flats.

### THE NEW SULPHUR SALINE GRAINS.

A splendid combination of the new Fruit Saline grains with pure precipitated Sulphur. One of the most taking preparations for this season of the year.  
In 6-oz. white patent stoppered flats.  
Buyer's name on 3 doz. and upwards.

# THOMAS TYRER & CO.

Chemical Works, Stratford, London, E. Established 184.

**"STERLING BRAND"**  
**BISMUTH AND MERCURIAL PREPARATIONS;**  
**ETHERS, PYROXYLINS, COLLODIOS,**  
**And Chemicals for Scientific and Technical Purposes.**

## BAYER'S PHARMACEUTICAL SPECIALITIES

|             |                                                                                                                                 |
|-------------|---------------------------------------------------------------------------------------------------------------------------------|
| TRIONAL.    | Absolutely safe and efficacious Hypnotic. Dose: 15 to 20 grains.                                                                |
| SOMATOSE.   | An important nutrient and invigorant, especially for Convalescents, Invalids, Phthisis, Cholera, Carcinoma ventriculi Rachitis. |
| IODOTHYRIN. | The active principle of the Thyroid Gland.                                                                                      |
| SALOPHEN.   | A Specific for Headache, Influenza, Acute Muscular Rheumatism.                                                                  |
| TANNIGEN.   | Acting promptly in Chronic and Acute Enteritis, especially for Children.                                                        |
| LYCETOL.    | (Tartrate of Piperazine.) Antilithic, Uric Solvent.                                                                             |
| EUROPHEN.   | A perfect substitute for Iodoform, odourless, and non-toxic. <i>Special indications:</i> Ulcus Mie. Papul. Madid., &c.          |
| ARISTOL.    | An excellent cicatrising agent. <i>Special indications:</i> Burns, Ulcus Cruris, Parasitical Eczema, Ozma.                      |
|             | PIPERAZINE-BAYER, PHENACETINE-BAYER, SULFONAL-BAYER, SALOL-BAYER.                                                               |

Wholesale Depot for all "Bayer's" Drug Specialities:

**ELBERFELD FARBENFABRIKEN CO., LTD., 19 ST. DUNSTAN'S HILL, IC.**  
 Also at Manchester, Glasgow, and Bradford.

## LOFTHOUSE & SALTMER, MANUFACTURING CHEMISTS, WHOLESALE & EXPORT DRUG MERCHANTS, HUL.

Manufacturers of Granular Effervescent Preparations. We shall be glad to give specially favourable quotations, and send samples of our superior Nos. 1, 2, and 3 qualities of CITRATE OF MAGNESIA.

Importers of Cod-liver, Castor, and Olive Oils; Extra Super Essence of Lemon and Bergamot, Otto de Rose, and all



Essential Oils; Valentia Saffron; Vanillas; Fruit Essences; Carmine, Aniline Dyes; Bees' Wax, &c., &c.

MANUFACTURERS of Very Superior Flexible Gelatine Capsules of Balsam Copiba, Cascara Sagrada, Castor Oil, Cod-liver Oil, Santal Oil, and Blaud's Pill Capsules, equal to 1, 2, and 3 pills. Samples and Lowest Quotations per 1,000. Boxes for Retail, will be sent on application from either the Wholesale or Retail Trade.

# COD LIVER OIL.

**"HENRIKSEN & CO.'S" Brand.**

*Guaranteed Pure. Very Finest 1897 Lofoden Non-freezing.*

FOR SAMPLES AND PRICES APPLY TO

**R. MORRISON & CO., 2 Fen Court, LONDON, E.**

*Sole Agents for the United Kingdom and Colonies.*

"HENRIKSEN & CO." are actual Manufacturers, & were awarded Gold Medals at the Tromsø Exhibitions in 1870 and 1891.

# BAISSL BROS. & CO.

Wholesale Druggists and Manufacturing Chemists,  
JEWRY STREET, LONDON, E.C., & NEW BROWN STREET, MANCHESTER.

**“SPECIAL PERFUMES.”** Unsurpassed.

CONCENTRATED LIQUORS.

Solid—**EXTRACTS**—Liquid. B.P. and U.S.P.

COD LIVER OIL, Finest Norwegian Non-congealing, 1897.

EXT. MALT AND EXT. MALT AND COD LIVER OIL.

Granular Effervescent Salts.

ESSENTIAL OILS, English & Foreign, of Finest Quality.

Oil Lavender, “Special.” Essence Lemon, “Special,” 1896.

**Makers of all Pharmaceutical Preparations.**

SPECIAL PREPARATIONS. : SEE OUR PRICES CURRENT,  
PILLS, COATED and UNCOATED. : sent on application.

**Quarterly Therapeutic Review.**—Record of all published New Remedies.  
Issued January, April, July, and October. Sent free on receipt of business card.



Established 1833.

# MAGNESIA

CARBONATE, CALCINED, AND FLUID.

THE WASHINGTON CHEMICAL CO., LIM., WASHINGTON, COUNTY DURHAM, ENGLAND  
London Agents—Messrs. CLIFFORD CHRISTOPHERSON & CO., 17 Great Tower St., London, E.C.

# ROBARE'S AUREOLINE Or GOLDEN HAIR WASH.

4-oz. Bottles, 32/-; 10-oz. Bottles, 64/- per doz.

To be obtained Wholesale from R. HOVENDEN & SONS, & from all the principal Patent Medicine Warehouses in London

HEWLETT'S

# LIQ. SANTAL FLAV. c. BUCHU ET CUBEBÂ

(THE ORIGINAL PREPARATION).

Dose—1 to 2 drachms diluted.

Packed for Dispensing only, in 10-oz., 22-oz., 40-oz., and 90-oz. bottles.

**CUTION.**—The uniform success which has attended the administration of this remedy during the last twenty years has caused a host of worthless imitations to be offered to the Medical Profession. These imitations, whilst closely copying the title, utterly fail to approach the original preparation in quality, and only give cause to disappointment and failure.

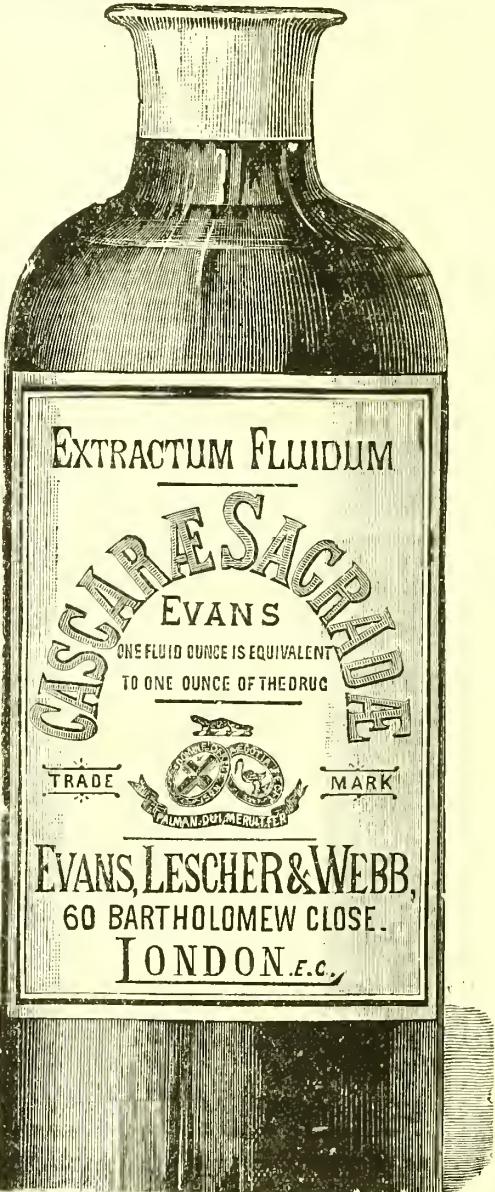
To ensure obtaining this preparation, please write “LIQ. SANTAL FLAV. c. BUCHU et CUBEBÂ (Hewlett's).

INTRODUCED AND PREPARED ONLY BY

C. HEWLETT & SON, Wholesale Druggists, 40, 41 & 42 Charlotte St., LONDON, E.C.  
NEW YORK—20 CEDAR STREET.

MONTREAL—30 FRANÇOIS XAVIER STREET.

# EVANS' FLUID EXTRACTS.



SPECIMEN OF BOTTLE AND FRONT LABEL.

EVANS' FLUID EXTRACTS are now perfected in our laboratories. They are prepared by elaborate processes, with the menstruum most suited to each individual drug; they contain the whole of the active medicinal properties. Infusions, decoctions, tinctures, wines, and syrups can be obtained from these fluid extracts, by mixing one minim for every grain of the drug. They are put up in actinic glass bottles, of 5, 10, and 20 fluid ounces, capsule, with a large gold front label; a special feature, to assist in dispensing, is the back label, containing full scientific names, botanical origin, description, medical properties, dose, strength, active ingredients, &c.

Complete List and Prices on application.

LONDON:  
**EVANS, LESCHER & WEBB,**  
60 BARTHOLOMEW CLOSE.

Canada: EVANS AND SONS (LIMITED), Montreal and Toronto.

# EVANS' SALINE

(EFFERVESCENT).

This preparation is a Mixture, in definite proportions, of Chlorate of Potash, English Tartaric Acid, Bicarbonate of Soda, and a little Cane Sugar. The proportion of the ingredients always remains the same. This and the other excess of acid characterise EVANS' SALINE.

dry mobile powder, dissolving perfectly in BOTTLES, WITH CHEMISTS' NAME, OR IN BULK NEW FOR WHARFES' FOR 1807.

# EVANS' OL. RICINI SINE SAPORE

(TASTELESS).

This CASTOR OIL is EXPRESSLY manufactured for us. It is produced by a process which removes the taste, though not the effect, of the properties.

# EVANS' COATED PILLS.

Pearl-coated, readily soluble, prepared in our own laboratory, with best drugs only, such as are used in all Evans' Pharmaceutical Preparations. New Enlarged List for several hundred formulas.

# EVANS' INSECT POWDER,

Imported and freshly ground at their own mills from *Cloed* at their *Flowers*. In bulk, or in 8d. and 1s. tins; perforated tops. 1. Tins, with *Hawley's* floral design.

# RECENT MATERIA MEDICA.

By F. HARWOOD LESCHER, F.C.S.  
Fifth Edition.

The characteristic of about 500 of the Drugs and Chemicals recently introduced into Medicine, with their Therapeutics, Authorities, Formulas, &c., &c. Price 4/-, post, f.

LIVERPOOL:

**EVANS, SONS & CO.**  
56 HANOVER STREET.

## SUPPORT HOME INDUSTRIES.



**BUY**  
**KENT'S**  
**BRUSHES.**

See p. 209-12, Summer Issue, 1896; also Diary, 1897, pp. 160, 161, 162, 163.

**DIAMOND EMERY CO.**  
 (LIMITED).

**DIAMOND BRAND.**

MANUFACTURERS OF

EMEY STONE

EMEY CORN (all sizes)

EMEY RUBBERS

EMEY FLOUR

EMEY PAPER

EMEY CLOTH

GLAS PAPER

GLAS CLOTH

GROUND GLASS

BLACKLEAD

LUMP & GROUND PUMICE

SILVER SAND

ROTTEN STONE

DIAMOND KNIFE POLISH

and POLISHING PASTE

FRENCH CHALK (Superfine

Angel White), specially for

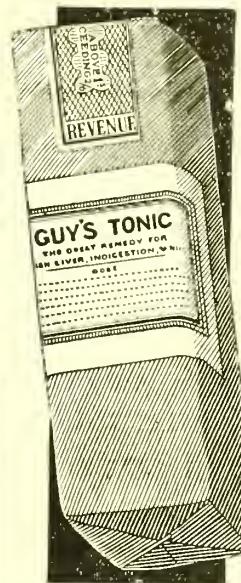
Druggists

CONTRACTORS TO THE ADMIRALTY.

Head Office—136 THE ALBANY, LIVERPOOL.

Works—Garston Docks.

Telephone, 959.



Guy's  
Tonic  
Sales  
Are  
Rapidly  
Increasing.

Write at once for Book of Seventy-six Pages.  
 Full of information interesting to Chemists.  
 Address :

**Guy's Tonic Co.**

12 Buckingham Palace Road, London, S.W.

**DR. SCOTT'S BILIOUS & LIVER PILLS.**

The proprietors of the above well-known Pills have decided in the interest of the Retail trade to stop all further cutting and allow a reasonable profit, and in so doing hope to secure the goodwill and co-operation of all respectable Chemists and Druggists.

**A GOOD PILL and GOOD PROFIT.**

|           |     |     |     |     |     |                                  |
|-----------|-----|-----|-----|-----|-----|----------------------------------|
| 1/1½ size | ... | ... | ... | ... | ... | Wholesale Price, 10/- per dozen. |
| " "       | ... | ... | ... | ... | ... | Minimum Retail Price, 1/-, box.  |
| 2/9 "     | ... | ... | ... | ... | ... | Wholesale Price, 24/-, dozen.    |
| " "       | ... | ... | ... | ... | ... | Minimum Retail Price, 2/6, box.  |

The proprietors will be obliged if Chemists will report all cases of Cutting to

**THE SECRETARY, PROPRIETARY ARTICLES TRADE ASSOCIATION,  
 2 and 3 STONECUTTER STREET, E.C.,**  
 who will see that the Cutting is stopped or supplies withheld.

Messrs. LAMBERT & CO. will be pleased to supply Handbills, with Name and address, CARRIAGE PAID, on receipt of Business Card direct to 178 Seymour Place, London W.

# TO THE MEDICAL PROFESSION AND CHEMISTS.

Owing to misapprehensions as to the amount of morphine used in the preparation of

## Mrs. WINSLOW'S SOOTHING SYRUP,

we wish to state that the amount is one-eighth (1/8) of one grain to a fluid ounce. As there are eight teaspoonfuls to an ounce, the amount of morphine in a teaspoonful, or maximum dose, is one sixty-fourth (1/64) of a grain.

It will be seen that this is very much less than the quantity used in other preparations authorised by the Pharmacopœia.

The Anglo-American Drug Company (Lim.),

W. RENAUD, Managing Director.

33 Farringdon Road, London.

# BEECHAM'S PILLS

IN £5 LOTS.

Complying with the voice of the majority of the Trade, the Proprietor of BEECHAM'S PILLS has reduced the minimum limit of orders to Five Pound Lots, and hopes this may be generally acceptable.

The new arrangement came into force on January 1st and the prices are now as follows:—

|                   |                      |     |     |     |      |                 |
|-------------------|----------------------|-----|-----|-----|------|-----------------|
| BEECHAM'S PILLS.— | 9½d. size (36 pills) | ... | ... | ... | 7/-  | per dozen, net. |
|                   | 13½d. " (56 pills)   | ... | ... | ... | 9/6  | "               |
|                   | 2/9 " (168 pills)    | ... | ... | ... | 25/- | "               |

No orders executed below £5 value. These prices are the lowest, no matter what quantity is ordered.

BEECHAM'S TOOTH PASTE (in collapsible tubes).—1/- size ... per dozen, net, 7 6  
Packages free. Carriage paid.

Cash must in all cases accompany orders, which, with requisitions for advertising matter, must be addressed—

THOMAS BEECHAM, ST. HELENS, LANCASHIRE.

# COX'S TASTELESS PILLS

The Original Makers of  
Tasteless Pills..



CHEMIST & DRUGGIST.  
These Pills are well  
made, evenly coated, and  
really soluble."

| TERMS—    | NO. | FORMULE.                        | 10 GROSS.   | 50 GROSS.    | 100 GROSS.  |
|-----------|-----|---------------------------------|-------------|--------------|-------------|
| 5% DIS.   | A   | Pil. Aper. c. vel sine Cal. ... | 4d. per Gr. | 3½d. per Gr. | 3d. per Gr. |
|           | 319 | Dandelion ...                   | 4d. "       | 3½d. "       | 3d. "       |
| CASH WITH | 104 | Rhei Co. ...                    | 4d. "       | 3½d. "       | 3d. "       |
| ORDER.    | 115 | Scilla Co. ...                  | 4d. "       | 3½d. "       | 3d. "       |
|           | 698 | Little Liver Pills ...          | 5d. "       | 4d. "        | 3d. "       |
|           | 110 | Pil. Hyd. c. Rheo ...           | 5d. "       | 4½d. "       | 4d. "       |
|           | 96  | Digestive ...                   | 5d. "       | 4½d. "       | 4d. "       |

No. 698 LITTLE LIVER PILLS (Sweetened or Pearl-Coated) can be had in Metal-capped Tubes (40 each), in tastefully printed wrapper, with YOUR OWN Name and Address, at 28/- per gross.

Foreign Orders of £5 and upwards are sent Carriage Paid.

*We pay all carriage in the United Kingdom.*

**ARTHUR H. COX & CO.**  
Tasteless Pill Manufacturers, **BRIGHTON.**

THE TIME IS RIPE  
FOR SELLING OUR  
Tasteless Bird Pepper.

**Canaries are Moulting !**  
**Fanciers are Buying ! !**

**ARE YOU SELLING ?**

There's a good thing to be made out of this line—**LARGE PROFITS & LARGE SALES.**

**OUR PEPPER** is the **BEST** in the **WORLD**,  
and has an enormous sale.

We have already this season received over 50 letters of praise for it from Chemists and Fanciers.

See "CHEMIST AND DRUGGIST," page 21, JULY 3, 1897.

Write immediately for Prices and Samples,

**BROOK, PARKER & CO.,** WHOLESALE DRUGGISTS,  
RD SEEDS AND FOODS AND VETERINARY DRUGS AND PREPARATIONS } A SPECIALITY.

**BRADFORD.**

# BOVRIL.

## What it is !

**BOVRIL** is Beef, the entire lean of the Best Beef procurable. Not the Forty Pounds Weight of Beef which would have to be eaten before the nourishment contained in One Pound of Bovril could be imparted to the system, but Forty Pounds of the primest parts obtained from the finest selected Cattle reared in Australia and South America, concentrated by a special process, rendering it the most perfect form of strengthening, stimulating, easily digestible nourishment in the smallest possible bulk.

## INVALID BOVRIL

Is specially prepared for use in the Sick Room. It is put up in porcelain jars and sold by Chemists and Druggists only; and it differs from ordinary Bovril in being more concentrated and quite devoid of seasoning, and is relished and retained by Invalids when ordinary food and stimulants are rejected.

**BOVRIL, LTD., Food Specialists, LONDON.**

Chairman—RT. HON. LORD PLAYFAIR, K.C.B., LL.D.

# "SOLAZZI" LIQUORICE JUICE.

## THE CHEMISTS' BRAND.

### THE TESTIMONY OF "THE LANCET."

*The following is from "THE LANCET" of March 30, 1898.*

"The above brand has long been known to be of standard purity. We found the specimen to be completely soluble in water and entirely free from impurities of any kind. It is, therefore, well adapted for the pharmaceutical purpose for which it is so useful, while as a popular demulcent it is both safe and reliable."

Recommended also by "The British Medical Journal," "Health," "The Chemist and Druggist," "Food and Sanitation."

**ASK FOR SHOWCARDS AND HANDBILLS.**

**ALBERT LEVY & THOMAS,**  
CIGAR SHIPPERS,  
LEADENHALL STREET, LONDON, E.C.

*And at HAVANA.*

DUTY PAID PRICE LIST (No. 32, to the TRADE ONLY)  
OF

**HAVANA CIGARS,**

ALSO

Borneo, Java, Teneriffe, Mexican, Manilla, British, India Cigars, Egyptian, Turkish, Russian, American Cigarettes.

At the VERY LOWEST PREVAILING MARKET PRICES,  
can be had on application, gratis and post free.

**WE EMPLOY NO TRAVELLERS OR AGENTS,**  
therefore SELL at the CHEAPEST RATE.

**CHEMISTS AND DRUGGISTS** would find the Cigar Business as introduced by us most remunerative and a valuable addition, considering that Grocers, Drapers, and to many other various trades have taken up Chemistry and Drugs. No other business blends so well with Chemists or Druggists as the Cigar business. Some of the leading firms have taken up our lines with the greatest success.

We shall be pleased to give beginners all necessary information.

There is no cutting in our articles, as these are only confined to one or two firms in each town; please, therefore communicate with us at once.

Telegrams—"VECTATIO." Telephone 11,547, Avenue.

### DISPENSING BOTTLES

#### THE NORTH LONDON CLASS BOTTLE COMPANY

(I. ISAACS & CO., Proprietors)

Beg to inform the Trade that they have made a further reduction in the price of their Bottles, as follows:—

The NEW SHAPE FLAT BOTTLES, with rounded edges, plain or graduated—

|              |                |                |                 |
|--------------|----------------|----------------|-----------------|
| 3 & 4 oz. .. | 7/6 per gross. | 10 & 12 oz. .. | 12/- per gross. |
| 6 .. 8 ..    | 8/6 "          | 16 ..          | 16/- "          |

WHITE MOULDED PHIALS, plain or graduated Teaspoons

1 oz. .. 3/6 per gross. 1½ oz. .. 4/6 per gross.

3/9 " 2 " .. 5/- "

#### PLEASE NOTE.

Six gross and upwards, assorted or otherwise, are carriage paid to any address in England; smaller quantities not carriage paid.

**I. ISAACS & CO., Glass Bottle Manufacturer**

**106 MIDLAND ROAD, ST. PANCRAS, LONDON.**

*Established 50 years.*

*Bankers—London and Westminster Bank*

### MASSAGE AT HOME

### THE MATTO CHAIN

Used by the leading Athletes, Cyclists, &c. It is valuable for Liver Complaints, Rheumatism, and all Nervous Disorders. A sure Preventive of Obesity.

**PRICE 7/6 EACH, from ALL CHEMISTS.**

WHOLESALE ONLY FROM  
**MATTO, LIM.,** Clerkenwell Road, **LONDON, E.C.**

## Profitable Extras for Chemists.

### TOBACCO, CIGARS, CIGARETTES.

#### AND TOBACCONISTS' FANCY GOODS.

All Packet Tobaccos, Cigarettes, and other Tobacconists' Proprietary goods supplied at Manufacturers' own List Prices. Every Smoker's Requisite and all Novelties—Up to Date—in one order.

### MINIMUM OF TROUBLE—MAXIMUM OF PROFIT.

SEND FOR ILLUSTRATED PRICE LIST (200 PAGES), POST FREE.

**SINGLETON & COLE, BIRMINGHAM.**

# PETER TYRER'S SAUCES

WORCESTER, READING, HARVIE, YORKSHIRE, AND "BOROUGH" KETCHUP.

SILVER MEDAL.

|                                 | Per gross. | Extra quality. | Per gross.                                     | Extra quality. |
|---------------------------------|------------|----------------|------------------------------------------------|----------------|
| 1d. Sole Bottles, dozen parcels | 5/-        | 6/-            | 1/- Bottles, flat or round, reputed half-pints | 16/- 26/-      |
| 1/- gross boxes                 | 5/-        | 6/-            | 1/- pints                                      | 26/- 38/-      |
| 1d. Gilt "                      | 6/-        | 8/-            | 1/- Pint Imperial, round stoppered bottles     | 52/- 62/-      |
| 1/- gross boxes                 | 7/-        | 9/-            | 12½-Gallon Casks (casks/rate)                  | each 20/- 32/- |

**ROYAL CAFE SAUCE**, a Rich Fruity and Exquisite Flavour.

Square Glass Stoppered Bottles, containing nearly ½-pint Imperial, 42/- per gross. Sample Bottles at 7/- per gross.

MANUFACTORY — 30 SOUTHALL PLACE, LONG LANE, BOROUGH, LONDON, S.E.  
CHIEF SCOTCH AGENCY — West Nile Street, GLASGOW.



## MARVINE GELOIDS

THE NEW CONCENTRATED

### FOOD AND DRINK TABLETS

FOR TRAVELLERS, CYCLISTS, ATHLETES, DYSPEPTICS, INVALIDS, AND CONVALESCENTS.

Are leaping into popularity, and are being stocked by all Wide-awake Chemists

Per 1/- Box.

TRADE TERMS, SHOW CARDS, AND COUNTER BILLS ON APPLICATION.

Manufactured by

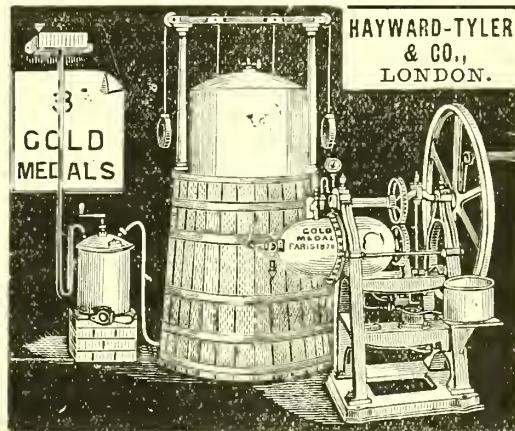
MARVINE, LTD., 28 ELDON ST., LONDON, E.C.

Wholesale London Agents:—MARSHALL'S, LIMITED, 27 RED LION SQUARE, W.C.



AND OTHER  
AERATED TABLE WATERS  
W. A. ROSS & SONS, LTD.  
BELFAST.

4 GOLD MEDALS  
FOR  
AERATED WATER MACHINERY.



HAYWARD-TYLER  
& CO.,  
LONDON.

COMPLETE PLANTS to produce from 80 dozen to 3,000 dozen per day.

LABOUR-SAVING MACHINERY,  
ALL FACTORY REQUISITES.  
Latest Improvements, &c. [2]

HAYWARD-TYLER & CO.  
90 & 92 WHITECROSS STREET, LONDON.

# Beer in Bottle.

# WHITBREAD & CO.

(LIMITED)

## LONDON COOPER, STOUTS, AND ALES

IN IMPERIAL PINTS AND HALF-PINTS, CORKED OR SCREW-STOPPED

Carriage paid, One Ton Lots, by arrangement with Customer, in accordance with  
Locality and Carriage Rates.

CHIEF OFFICE AND STORES—

## 277 GRAY'S INN ROAD. LONDON. W.C.

DEPOTS—

Weston Street, London, W.C.

M. S. & L. Ry., Sheffield.

Britannia Street, London, W.C.

21 Great Charles Street,

170 Lewisham Road, London, S.E.

Curzon Hall Vaults, } Birmingham

Bell Brewery, Tottenham, N.

42 High Street,

Stag Brewery, Enfield.

The Arches, Pall Mall, Liverpool.

Dunger Place, New Southgate, N.

M. S. & L. Ry., Store St., Manchester

The Calls, Leeds.

East Wharf, Cardiff.

The Arcade, Barnsley.

The Arches, Orchard Street, Newcastle-on-Tyne

ROBERT BAKER,  
SOLE AGENT.

# BARNETT & FOSTER

## MANUFACTURERS.

### The "COMPACT"

#### CONTINUOUS ACTION

# Soda-Water Machine

For use with the Liquefied Carbonic Acid Gas.

Speciely designed for use where space is an object, and for those having a large tail trade, such as Chemists, Hospitals, Restaurants, Hotel Proprietors, &c. They are ready or work immediately require no fixing, and produce Aerated Water of the very highest quality at a minimum of cost.

We guarantee to produce a better article with these than any other system adapted for using the Liquefied Gas, and at a lower pressure, thus effecting a immense saving in bottles, and also reducing risk of accidents.

.....

**NO DANGER.**

**NO MESS.**

**PERFECTLY RELIABLE.**

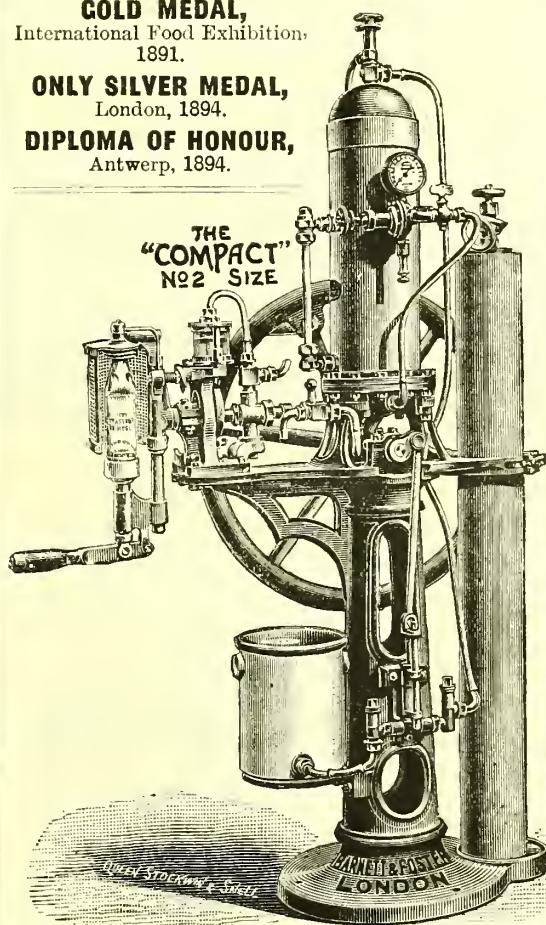
.....

I use by  
Leading  
Chemists in all  
parts of  
the United Kingdom.

**COLD MEDAL,**  
International Food Exhibition,  
1891.

**ONLY SILVER MEDAL,**  
London, 1894.

**DIPLOMA OF HONOUR,**  
Antwerp, 1894.



No. 1 Size, complete with Turnover and Syphon-filling Machine, and fitted with fast and loose Pulleys for driving by Power. Code word *Supremacy*. £60

*Two Fillers included.*

Producing Capacity by Hand-power 600 dozen per day.

Ditto, by Power, 1,200 dozen per day.

No. 2 Size, complete with Turnover and Syphon-filling Machine. Code word *Royalist*. £48

*Two Fillers included.*

Producing Capacity by Hand-power 350 dozen per day.

Ditto by Power, 700 dozen per day.

No. 3 Size, complete with Turnover or Syphon-filling Machine. Code word *Retailer*. £33

Producing Capacity by Hand-power 200 dozen per day.

Syrup Pump fitted to the Turnover Filling-machine on either of above (*Injecto*) £2 extra. If fitted with one Filling-machine only, the two largest Machines are charged £3 less than above prices.

*Sole Inventors and Manufacturers of the*

**"Niagara" Bottle and the London-made Syphon**  
KNOWN ALL OVER THE WORLD.

*Illustrated Descriptive Catalogue of every requirement for the Mineral Water Trade on application.*

**Niagara Works, 261 EAGLE WHARF ROAD, LONDON, N.**

# ROBINSON'S ORIGINAL CONCENTRATED WATERS.

ESTABLISHED 1855.

|                                                                                                                                                                                                                                                               |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| When diluted in the proportion of one part to forty parts of water at 60° temperature, they faithfully represent the Medicated Waters of the British Pharmacopœia. They are always of uniform strength, and will keep good any length of time in any climate. |
| Aqua Amygd. Amar. Cono. (U.S.) ... 4/- per lb.                                                                                                                                                                                                                |
| " Anethi. Concent. ... 4/- "                                                                                                                                                                                                                                  |
| " Anisi. " 4/- "                                                                                                                                                                                                                                              |
| " Camphor. " 4/- "                                                                                                                                                                                                                                            |
| " Carui. " 4/- "                                                                                                                                                                                                                                              |
| " Cinnam. Ver. Cono. ... 8/- "                                                                                                                                                                                                                                |
| Aqua Cassia Conc. ... 4/- per lb.                                                                                                                                                                                                                             |
| " Flor. Aurant. ... 8/- "                                                                                                                                                                                                                                     |
| " Sambuci Cono. ... 8/- "                                                                                                                                                                                                                                     |
| " Foeniculi Cono. ... 4/- "                                                                                                                                                                                                                                   |
| " Menth. Pip. Cono. ... 4/- "                                                                                                                                                                                                                                 |
| " Ang. Cono. ... 8/- "                                                                                                                                                                                                                                        |
| Aqua Menth. Virid. Cono. ... 4/- per lb.                                                                                                                                                                                                                      |
| " Pulegii " " 4/- "                                                                                                                                                                                                                                           |
| " Rosmarini " " 4/- "                                                                                                                                                                                                                                         |
| " Rose " " 4/- "                                                                                                                                                                                                                                              |
| " Virgin. " " 10/- "                                                                                                                                                                                                                                          |

The above may be had in 1/2-lb. or 1-lb. Bottles and upwards, through most of the Wholesale Drug Houses.

Each Bottle has the Inventor's Protection Label over the cork, without which none are genuine.

## SUPERIOR ORANGE WINE (Vin. Aurantii, B.P.).

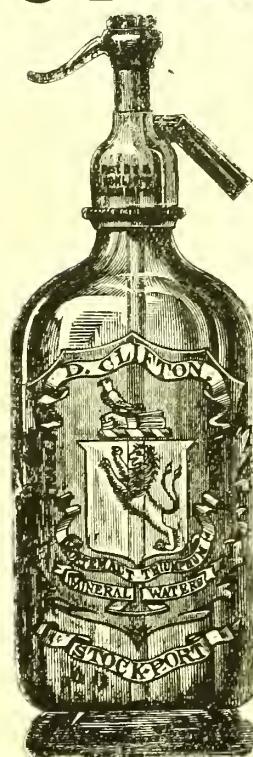
Samples of any of the above sent free on application from  
B. ROBINSON, Distiller and Brewer of British Wines, Church Street, PENDLETON, MANCHESTER.

A. MILLAR & CO., LTD., DUBLIN.

## PURE ORANGE WINE

(VINUM AURANTII, B.P.), prepared in strict accordance with the Formula of the British Pharmacopœia.

## SYPHONS SELTZOGENES



Messrs. J. & BARRIE JOHNSTONE & CO., 20 Loftus Street, Sydney, N.S.W.  
Agents for New South Wales, Queensland, and New Zealand.  
Messrs. NOYES BROS., 43 Queen Street, Melbourne, Victoria, Agents for  
Victoria, South and West Australia, and Tasmania.

**SODAWATER  
MACHINERY  
AND APPLIANCES  
BRATBY & HINGLIFFE LTD  
• ANCOATS • 146 MINORIES  
MANCHESTER LONDON  
•  
81 ROBERTSON STREET, GLASGOW.**

**PRICES.**  
**SYPHONS ... 1/6, 1/8, and 1/10 each.**

**SELTZOGENES.**

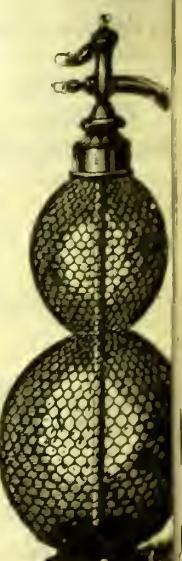
| 1   | 2   | 3   | 4   | 5    | 8    | pint. |
|-----|-----|-----|-----|------|------|-------|
| 6/- | 6/8 | 7/6 | 8/6 | 10/5 | 16/- | each. |

Including two funnels and stopper for charging.

The tops of these Seltzogenes are made of pure black tin, guaranteed.

A copy of our Book of Instructions for the manufacture of Aerated Beverages will be presented to purchasers.

All our Seltzogenes are manufactured on the well-known "Fevre" System, and each one is thoroughly tested before leaving the works.



# Hunyadi János

Kown, after 25 years' test in the United Kingdom, as the most popular, safest, and best Natural Aperient Water, is now being supplied through the Distributing Wholesale Houses all over Great Britain and Ireland, at prices fixed by the Proprietor, Mr. Andreas Selehner, of Budapest, Hungary, which are as follows:—

Per Case of 25 large bottles, **22/6** ..... Per dozen, **12/-**

„ „ 50 small „ **35/-** ..... „ „ **10/-**

„ „ 25 large „ **21/-** } Per 10-case lots.

„ „ 50 small „ **32/-** } For net cash.

London Agency—TRAfalgar BUILDINGS, CHARING CROSS, W.C.

FOR PURE LIQUEFIED

# Carbonic Acid Gas

APPLY TO

The CARBONIC ACID GAS CO. or The CARBONIC ACID GAS CO.

LA BRIDGE ROAD, CLAPTON,  
**LONDON,**

POLLARD ST. EAST, ANCOATS,  
**MANCHESTER.**

.....

## NEWCASTLE-ON-TYNE.

Our New Works at Newcastle-on-Tyne are now in course of erection.

# CAFÉ ZYLAK

## PEPTONISED MILK AND COFFEE

(Concentrated).

This new preparation of Coffee with Peptonised Milk supplies a largely felt want in the case of Invalids and delicate people. It is a most valuable addition to the condensed peptonised milk foods which have met with such complete approval from the Medical Profession.

### PEPTONISED MILK

(Concentrated).

All the above preparations are sold in tins at 1s. 6d. and 2s. 6d., and are obtainable everywhere.

### PEPTONISED COCOA AND MILK

(Concentrated).

**SAVORY & MOORE, 143 NEW BOND STREET, LONDON.**

Chemists to the Queen and H.R.H. the Prince of Wales.



# TOWER TEA.

The Best and the Cheapest in the World at the Price.

In  $\frac{1}{4}$ ,  $\frac{1}{2}$ , and 1-lb. Packets only, to Retail at 1/-, 1/2, 1/4, 1/6, 1/7, 1/8, 1/9, 2/-, 2/4, 2/8 per lb. Also in Handsome 1-lb., 3-lb., and 5-lb. Decorated Tins, to Retail at 1/10, 2/-, and 2/4 per lb.

Agents appointed by

**TOWER TEA, LIMITED, 5 JEWRY STREET, LONDON, E.C.**

"THE LANCET" (July 3rd, 1897) on

## VAN HOUTEN'S COCOA.

"In a recent analysis which we have made, the results distinctly indicate the advantage of VAN HOUTEN'S PROCESS of manufacture. Thus, this cocoa yields a decoction containing a maximum proportion of the valuable food constituents of the bean, and what is of more importance still, these are presented in a condition more easy of assimilation and digestion than in cocoa not so prepared."

OVER 200 COLD MEDALS AND DIPLOMAS.

### FRY'S

Pure Concentrated

## COCOA

Try also FRY'S MALTLED COCOA,

a delicious combination of

FRY'S PURE COCOA AND MALT EXTRACT  
(Allen & Hanbury's).

## SEASONABLE ARTICLE

All these articles are popular summer beverages, and are put up in small bottles attractively finished off.

### LIME JUICE CORDIAL AND LEMON SQUASH.

Reputed Pints, per doz.—CORDIAL, 4/3. LEMON SQUASH, 4/3.

Quarts, " " 6/9 " " 6/9

Per Gallon .. " " 2/- " " 2/-

Also in Flat Flasks, Square Stoppered Bottles, and Handsome Decanter

PURE WEST INDIA LIME JUICE (Filtered Bright). Per gall., 2/6.

GRANULAR EFFERVESCENT CITRATE OF MAGNESIA. 1

cwt., 66/- and 74/-. Also in small Bottles.

EFFERVESCENT SUMMER SALINE. Per cwt., 85/-. 8-oz. bottl

6/9; 16-oz. bottles, 12/- per dozen.

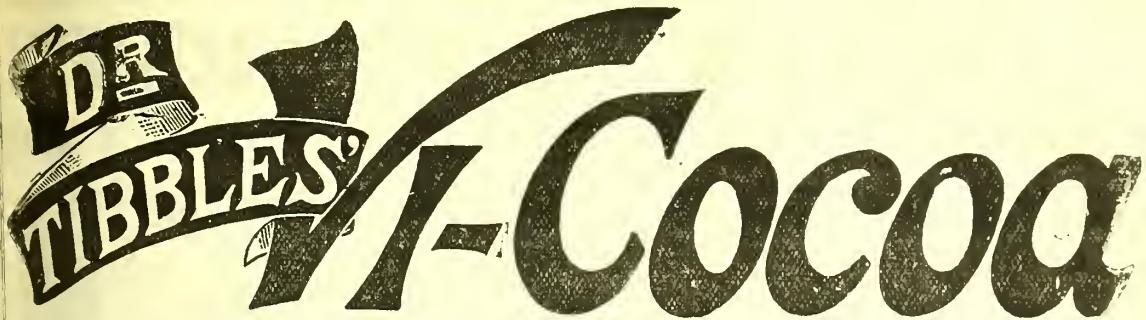
PERSIAN SHERBET (Lemon Kali). Per cwt., 33/- and 36/-. Also

1 and 2 lb. Bottles and Tins.

Prepared under the superintendence of a duly qualified Analytical Chemist.

FULL PRICE LIST (ILLUSTRATED) ON APPLICATION.

**CHAS. SOUTHWELL & CO., Dockhead, LONDON, S.E.**



## THE WHOLESALE PRICE.

RETAIL PRICE.

|                                  |     |     | PER DOZEN. |
|----------------------------------|-----|-----|------------|
| 6d. Packets (Two Dozen in a box) | ... | ... | 5/-        |
| 9d. Tins (Two Dozen in a box)    | ... | ... | 7/6        |
| 1/6 Tins (One Dozen in a box)    | ... | ... | 15/-       |

## DISCOUNTS.

5 per cent. Discount on Orders up to £5.

7½ per cent. Discount on Orders for £5 and upwards.

TERMS—CASH WITHIN 7 DAYS.

CARRIAGE PAID ON ORDERS VALUE £2 AND UPWARDS.

N.B.—The above Discounts are from 3½ to 6½ per cent. better than can be obtained from any other source, whilst the merits of DR. TIBBLES' VI-COCOA are far greater than any other similar preparation in the world.

## LIMIT OF CUTTING.

The Proprietors hereby give notice to the Trade that the limit of "cutting" prices of DR. TIBBLES' VI-COCOA has been fixed as under:—

6d. Packets to be sold at not less than 5½d.

9d. Tins , , , not less , 8½d.

1/6 Tins , , , not less , 1/4½

*Full Prices to be obtained wherever possible.*

## FURTHERMORE,

Any Chemist, Grocer, or Stores cutting below these prices will be refused supplies direct from ourselves. And in this connection it is important to note that in £5 lots and upwards no trader in the kingdom, "Wholesale or Retail," can obtain more than the 7½ per cent. discount we offer.

Furthermore, as we pay carriage on orders value £2 and upwards, it will not be possible to obtain the advantage of this concession, nor that of the exceptional discounts we offer, unless our ruling as to the "cutting" of price is complied with.

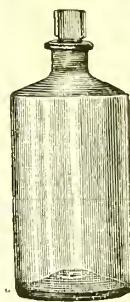
Read the foregoing, send your order to



6, 61, and 62 BUNHILL ROW, LONDON, E.C.

*And obtain your fair share of the profits that are daily being made by our customers everywhere.*

# BOTTLES FOR ALL REQUIREMENTS



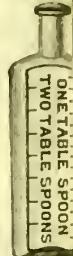
Trial Orders and enquiries solicited by

**E. YOULDON,**

ESTABLISHED 1840,

East London Glass Bottle Warehouse,  
36, 38 & 40 GREAT GARDEN ST., WHITECHAPEL, LONDON, E.

Telegraphic Address—“YOULDON LONDON.”



**H. POTHS & CO., 3 Creechurch Lane, Leadenhall Street, E.C.**

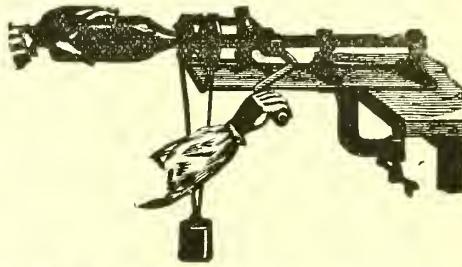
SHOP BOTTLES AND JARS WITH VITRIFIED (BURNT IN) LABELS.

METAL SCREW-CAP BOTTLES, GLASS MEASURES, STOPPERED BOTTLES, &c.

Buyers are requested to pay a visit to our New Showrooms.

## NEW CAPSULING MACHINE

The only Machine  
which leaves no crease  
or pleat on the  
Capsule. [1]



Can be fixed to any  
Counter.  
A single pull of the lever  
is sufficient  
to fix the Capsule.

Patentee—**C. MELIN.** 37 Crutched Friars. LONDON. E.C.



**AUSTIN & CO.**

Patentees and Manufacturers of FANCY CARD

**ROUND, OVAL, & SQUARE SHAPED BOXES**

FOR POSTAL AND GENERAL PURPOSES.

ALSO PATENT BARREL PACKAGES, WITH METAL ENDS, FOR DRY GOODS

AND

Makers of best class of Violet Powder Boxes, and high-class goods of  
every description for Perfumery, &c.

**8 GREVILLE STREET, HATTON GARDEN, LONDON, E.C.**

STEAM WORKS, 2 PRINTER'S BUILDINGS.

# BREFFIT'S, LTD.

Chemists' and Druggists' Bottle Manufacturers.

DISPENSING BOTTLES, PERFUME BOTTLES, POISON BOTTLES,  
SYPHONS, MINERAL WATER BOTTLES.

8 UPPER THAMES ST. London Offices.

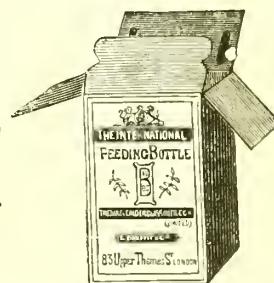
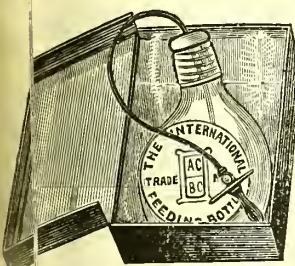
## FEEDING BOTTLES AT REDUCED PRICES.

### THE "INTERNATIONAL" & "LA SPECIALITÉ."

With Best Fittings. Each in Paper Bag.

|                                         |      | Per Gross. |
|-----------------------------------------|------|------------|
| No. 95. GREEN BOTTLE, Box Top Cork      | ...  | 24/-       |
| „ 96. WHITE „ „ „                       | ...  | 26/-       |
| „ 97. GREEN BOTTLE, Screw Glass Stopper | 26/- |            |
| „ 98. WHITE „ „ „                       | 28/- |            |

Also in Folding Cardboard Cases, attractively labelled.



### POISONS.

Flat Shape.

Lettered—Not to be Taken.

| 1   | 2   | 4   | 6   | 8    |
|-----|-----|-----|-----|------|
| 5/- | 6/6 | 8/- | 9/- | 11/- |

| 10   | 12   | 16   | 20 oz. |
|------|------|------|--------|
| 14/6 | 16/- | 18/- | 22/-   |

per gross.  
Dark Blue or Actinic  
Green Glass.

### PANEL FLATS.

Pale Green  
Glass.

Wide Mouth.

| 1   | 2   | 3   | 4   |
|-----|-----|-----|-----|
| 5/6 | 6/6 | 7/- | 8/- |

| 6   | 8 oz. |
|-----|-------|
| 9/6 | 11/-  |

per gross.



### KALIS.

| 1   | 2   | 4   | 6   | 8   | 12   | 16 oz.          |
|-----|-----|-----|-----|-----|------|-----------------|
| 3/6 | 4/6 | 6/- | 7/- | 8/6 | 12.6 | 16/- per gross. |

### LIMES.

| 1   | 2   | 4   | 6   | 8   | 12   | 16 oz.          |
|-----|-----|-----|-----|-----|------|-----------------|
| 3.6 | 4/9 | 6.6 | 7.6 | 9/- | 13/- | 18/- per gross. |

### S'OPPERED SHOP ROUNDS.

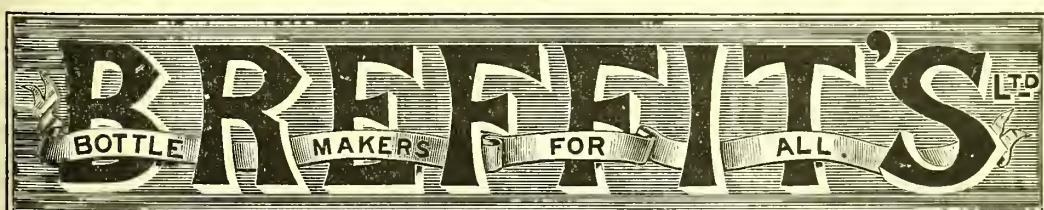
### REDUCED PRICES.

| 1        | 2   | 4    | 8   | 16  | 20  | 30  | 40 oz.         |
|----------|-----|------|-----|-----|-----|-----|----------------|
| N.M. 1/2 | 1/3 | 1/8  | 2/6 | 3.6 | 4/- | 4/9 | 5.6 per dozen. |
| W.M. 1/5 | 1/6 | 1/11 | 2/9 | 4/- | 4/6 | 5.3 | 6/- "          |

CUT OR PLAIN GLOBE HEAD STOPPERS, Prices on Application.

HONEY JARS. VARIOUS SHAPES. SCREW METAL CAPS AND CORK WADS.

GRADUATED MEASURES. STOPPERED ESSENCE BOTTLES.



Telegra-  
"BREFFIT'S  
LTD."  
—  
No. 13.

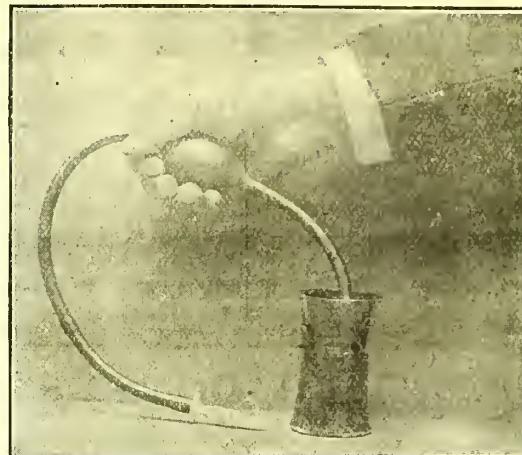
Telepho-  
No. 13.

# DR. PARKER'S PATENT ANCHOR ENEMA

MADE IN BEST BLACK  
RUBBER, MOULDED.

The Patent Anchor holds the Enema firmly in position when in use, leaving both hands free and effectually preventing the possibility of air being drawn inside the Enema instead of the fluid.

ANCHORS with VALVE  
ATTACHMENT,  
which can be readily fitted to  
any Enema,  
can be had separately.



Sole Manufacturers

**WM. CURRIE & CO.**

CALEDONIAN RUBBER  
WORKS,

EDINBURGH.

London Address—

3 FALCON SQUARE,  
WOOD STREET, E.

## WOODRUFF'S TRANSPARENT CELLULOID SPRAY PRODUCT

(Patented in England, Germany, France, and U.S. America),

For Applying Small and Measured Quantities of Medicaments to the Larynx, Pharynx, and Nasal Cavity.

Write for List of Prices, Press Opinions, and Descriptive Circulars, to the Patentee—

**T. WOODRUFF, Pharmaceutical Chemist, WITHTINGTON, MANCHESTER.**

## SUPERIORITY OF THE "WILLARDBELL" SPECIALITIES

### The "Willardbell" Truss. (PATENTED.)

Acknowledged by the Medical Profession to be the Best. The principle is an entire departure from the old style. Scientific, Simple, and Successful. Never Rusts—always Clean, Cool, and Comfortable. Largely adopted throughout the Kingdom, on the Continent, and the Colonies.

### The "Willardbell" Suspensory. (PATENTED.)

With Flexible Aluminium Front. The Best on the Market.

### The "Willardbell" Jock Strap. Worn by all Athletes. Will prevent Strains, and afford much greater freedom of movement.

### The "Willardbell" Ladies' Sanitary Bandage. The Latest and Best out.

### The "Willardbell" Elastic Web Truss.

Specially made for Ladies, and fitted with Water Pad.

### Chest and Lung Protectors.

### Ladies' and Gentlemen's Shoulder Braces.

For straightening the Shoulders and expanding the Chest.

### Abdominal Supports.

Of High-class Quality and Finish.

### Elastic Stockings, Knee Caps, and Anklets.

In a variety of Colours.

### AND OTHER APPLIANCES.

**NOTE.**—We have no hesitation in bringing our Goods under your special notice, as they have already established a reputation amongst Doctor and Chemists as of superior quality, finish, and efficiency.

We shall be pleased to submit on application Prices and Testimonials in reference to our Goods, with any other information required. Chemists who take up Agencies for our manufactures will considerably increase the yearly turn-over of their business. A large number of Agents have already been appointed in the United Kingdom.

We are well equipped for despatch of Export Orders, but wherever possible should prefer such to pass through the Shipping Agents in England.

**MANUFACTURERS**—ACORINTON SURGICAL APPLIANCES CO., LIMITED, DALE STREET WORKS, ACORINTON. Tel. No. 8.

**Sole Agents for South Africa**—B. G. LENNON & CO., LTD., 75 Leadenhall Street, LONDON, E.C.  
SOLD BY LEADING CHEMISTS THROUGHOUT THE UNITED KINGDOM.

# RENDELL'S

## "WIFE'S FRIEND" SOLUBLE QUININE PESSARIES.



### IMPORTANT NOTICE AND CAUTION

Several Injunctions in the High Court of Justice having already been obtained against "Infringers" reports of which have appeared in "The Chemist and Druggist," the most recent being in issue of April 24, 1897), W. J. RENDELL'S SOLICITORS are instructed to take proceedings against all persons (makers or Vendors) fraudulently using the name of "W. J. RENDELL," "RENDELL," or any colourable imitation thereof, in connection with Pessaries **not** manufactured by

**W. J. RENDELL,**  
Inventor and Sole Maker of the "WIFE'S FRIEND" SOLUBLE PESSARY,  
15 CHADWELL STREET, CLERKENWELL, LONDON, E.C.

See that the Registered Trade Mark and Number (but in red ink) are upon each box thus:—

Registered  
Trade Mark without which  
none are genuine.  
No. 182,688.

*W. J. Rendell*

Registered also in Australia, India, The Cape, The Argentine, Germany, &c.

# BOXES

ESTABLISHED  
1839  
ESTABLISHED

ROUND, OVAL, SQUARE, or FOLDING, for the  
**DRUG, DRYSALTERY, AND CONFECTIONERY TRADES.**

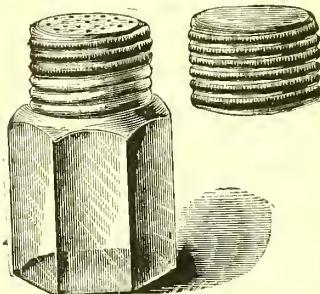
LABELS, WHEN PRINTED TO OUR INSTRUCTIONS, WE PUT ON PILL  
AND OTHER BOXES FREE OF CHARGE.

### BOXES AND CASES FOR

Baking Powder, Black Lead, Bottles, Camphor Ball, Capsules, Castor Oil, Cough Lozenges, Dispensing Powder, Eye Ointment, Fancy Boxes, Fuller's Earth, Folding Boxes, Glass Top Outers, Homœopathic Bottles, Insect Powders, Ink Cases, Jewellery, Lozenge, Lip Salve, Magnesia, Metal Paste, Marking Ink, Nipple Shields, Night Lights, Parcel Post, Pastilles, Pills, Potash Tablets, Plasters, Salt Lemon, Seidlitz Powder, Starch Gloss, Soaps, Soda Powder, Syringes, Tapers, Tooth Powder, Violet Powder, &c.

**ROBINSON & SONS, LTD., WHEATBRIDGE MILLS & CHESTERFIELD,  
HOLMBROOK WORKS, And 55 FANN STREET, ALDERSGATE STREET, LONDON.**

## BENTLEY'S PATENT POWDER DREDGERS



### FOR IODOFORM

Foot Powder,  
Boot Powder, &c.  
Price from 2/6 per doz.

E. BENTLEY & SON,  
Bath Street,  
City Road,  
LONDON.

## A GOOD PROFIT!

ALL RETAILERS SHOULD STOCK

## GOLDEN NUGGET OINTMENT

### For PILES.

1/1½ sizes, Wholesale Price 9/6 per doz.

WILTON & CO., LTD.  
17 Withy Grove, MANCHESTER.

## INDIARUBBER HOT WATER BOTTLES, CUSHIONS, BEDS, PILLOWS, &c.

Made of Best "Para" Rubber and guaranteed Durable.

STANDARD DRAB QUALITY—OUR

### PATENT "COMFORT" WATER BOTTLES. RED, BLACK, AND CLOTH COVERED.

All our Bottles are fitted with Currie's Patent Safety Filling Screw, which  
prevents risk of scalding when filling.

WHOLESALE ONLY. BEST TERMS TO CHEMISTS.

WILLIAM CURRIE & CO., CALEDONIAN RUBBER WORKS, EDINBURGH.

London Address—3 FALCON SQUARE, WOOD STREET, E.C.



## ESCHMANN BROS. & WALSH.

Inventors and Manufacturers of the

### SOFT SILK FLEXIBLE CATHETER, GUARANTEED WITH WOVEN EYES.

To be had of all Surgical

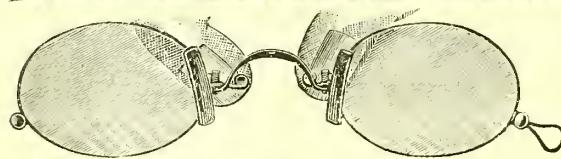
Instrument Makers

and Wholesale Houses.

To be had of all Surgical

Instrument Makers

and Wholesale Houses.



Telegrams, "ASTIGMATIC." Telephone 65299, Holborn.

## J. RAPHAEL & CO.

Wholesale Manufacturing Opticians,

51 CLERKENWELL ROAD, LONDON, E.C.

We hold the Largest and most Varied Stock of Interchangeable Spectacles and Folders in this country.

## MILK STERILIZERS.

Nos. 1, 2, and 3.

## HAWSLEY'S PATENT.

Descriptive Pamphlets Free by Post.

### DAILY INCREASING SALE.

See Diary, page 574.

May be had through the Wholesale Trade, or direct from

Patentee, 357 OXFORD STREET, LONDON, W.

66



### "NON PLUS ULTRA" CATHETERS and BOUGIES

WARRANTED WOVEN EYES, SOLID ENDS, VERY  
FLEXIBLE AND STRONG WEB.

|                          |    |    |    |    |    |    |      |
|--------------------------|----|----|----|----|----|----|------|
| Cylindrical              | .. | .. | .. | .. | .. | .. | 7 6  |
| Conical                  | .. | .. | .. | .. | .. | .. | "    |
| A Boule or Olive pointed | .. | .. | .. | .. | .. | .. | 9 6  |
| A Coudée or Mercier      | .. | .. | .. | .. | .. | .. | 15 - |

Large Discount for Wholesale Buyers.

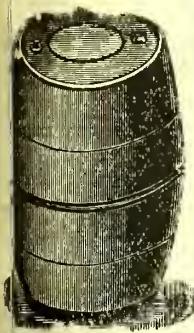
R. MANSON, 75 Fortress Road, Kentish Town, LONDON, N.

**CAIRD'S****STAMPED STEEL BARRELS****NO COOPERAGE, NO LEAKAGE, NO LOSS BY EVAPORATION.**

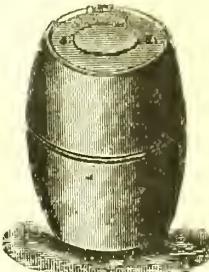
For Carrying and Storing  
Chemicals, Spirits, Acids, Varnishes, Oils,  
and Other Liquids.

**ALSO**

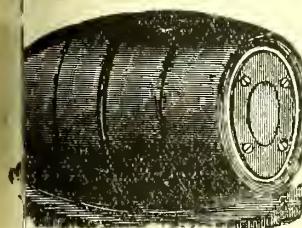
White Lead, Paints, Resin, Gums,  
Wax, Soft Soap, and other Dry or Semi-  
Liquid Goods.



are less Dangerous than  
Wood Barrels.

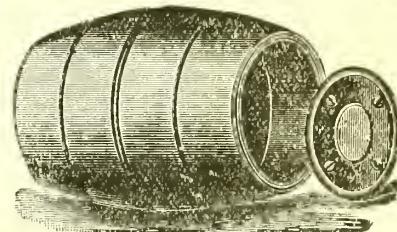


Occupy Less Space,  
are Stronger  
and more Durable  
than Wood Barrels.

**CORRESPONDENCE INVITED.**

SOLE MANUFACTURERS,  
**IRON & STEEL PLANT CO.**  
**LIMITED,**  
10 & 11 AUSTIN FRIARS,  
LONDON, E.C.

WORKS—Barrow-in-Furness.

**BEE SWAX****GUARANTEED PURE, YELLOW AND WHITE.**

*In Blocks, Cakes, Tablets, or any other form, at lowest possible prices.*  
FREE TO ANY PLACE IN THE UNITED KINGDOM.

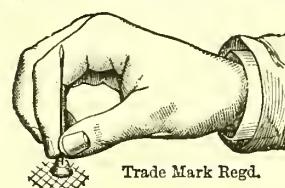
**AND BEST PURE BLEACHED CARNAUBA WAX.**

**LINEBURGER WACHSBLEICHE (Wax Bleaching Works),**  
LÜNEBURG, near HAMBURG, GERMANY.

**THE ASSOCIATION FOR THE SUPPLY OF PURE VACCINE LYMPH**

(ESTABLISHED 1877).

1 PALL MALL EAST,  
LONDON, S.W.

**CALF AND HUMAN.**

Telegraphic Address—

"DARQUE LONDON."

Office Hours—  
10 till 4. Saturday, 10 till 2.**PURE & RELIABLE.**

Trade Mark Regd.

*All Antiseptic Precautions most carefully observed.* PIN-POINTS GRATIS WITH VACCINE WHEN REQUESTED.  
CALF, Tubes, 2/-; Half-Tube, or two S.V. tubes, 1/-. **POMADE**, especially active, for Export, 5/-, 10/-, 20/- each.  
HUMAN, from healthy children only, microscopically examined and source quoted. Tubes, two-thirds full, 1/8 each; one-third full, 1/- each. Tubes, two-thirds full (in every respect equal to those mentioned above, but without source), in quantities for export, £5 per 100.

Sole Agents for **DR. WARLOMONT'S CALF VACCINE.** For price see Calf Vaccine above.F.O. (including postage, and crossed London and Westminster Bank), with orders payable to **EDWARD DARKE, Sec.**

**SPURWAY & CIE.**  
*Perfume Manufacturers,*  
**CANNES-GRASSE, FRANCE.**  
 ESTABLISHED 1820.  
 GOLD MEDALS—Philadelphia, 1876; Cannes-Grasse, 1893; Nice, 1884.

**FRENCH ESSENTIAL OILS,**  
**PURE OLIVE OILS, POMADES, &c.**  
 SPECIALITY—Finest Quadruple Extracts of  
 inimitable and lasting Fragrance.

London Branch—**184 SHAFTESBURY AVENUE, W.C.**

**R. ADDIS & SON.**

THE  
**“EVERFAST” TOOTH BRUSH**

PATENT



No. 6,645.

WARRANTED LONDON MADE.

These Brushes are Manufactured on an entirely new principle. In addition to the ordinary means of securing the bristle, holes are drilled through the sides and our “Everfast” cement intermingled with the bristle. By this original process every knot is so securely fastened that it is impossible for even a single hair to come out, the danger and unpleasantness of loose bristles in the mouth being completely removed. Only materials of first-class quality used.

To be OBTAINED of all WHOLESALE HOUSES & MERCHANTS.

**SHEEP DIPS.** For “Information Wanted”

WRITE **B. B. HARESCHEUGH & CO., Wellington St., LEEDS,**

Who supply Chemists with any of the following preparations packed in their own name:—

Arsenical Powder Dip; Arsenical Paste Dip; Non-Pois. Paste Dip and Fluid Dip; Horse and Cattle Washes; Paste Fluid; Maggot Lotion; Mange Liniment; Dog Soap; Carbolic Powder; Carbolic Acid; Carbolic Soft Soap.  
 DISINFECTANTS, BOTH POWDERS AND FLUIDS, IN BULK. PRICES ON APPLICATION. ESTABLISHED 1810.

**W. EDWARDS & SON**

**157 QUEEN VICTORIA STREET, LONDON,**

WHOLESALE AND EXPORT DEALERS IN

**Patent Medicines and Proprietary Articles**

ENGLISH, AMERICAN, FRENCH, &c.

**SOLE AGENTS for ROCHE’S HERBAL EMBROCATION,**

Burchell’s Anodyne Necklaces, Ford’s Balsam of Horehound, Widow Welch’s Pills, by Mrs. Smithers; Oxley’s Essence Ginger, and the preparations of Messrs. Hudson & Son, late of the Haymarket, London.

**PRICE LISTS SENT ON APPLICATION. ORDERS CAREFULLY AND PROMPTLY EXECUTED**

Agencies undertaken on advantageous terms for Proprietary Articles and other goods.

# CALVERT'S *Carbolic Disinfectants,*

SOAPS, TOOTH POWDER, OINTMENT, &c.

Are the ONLY RELIABLE PREPARATIONS.

Awarded 76 Gold and Silver Medals and Diplomas.

**F.C. CALVERT & CO., P.O. Box 513, MANCHESTER.**

## TO ADVANTAGE.

**INSECT POWDER.**

Genuine Dalmatian, ground from the Closed Wild Flowers of "Pyrethrum roseum."

**POWDERED HELLEBORE.**

In fine Powder, and Genuine.

**STAVESACRE SEEDS.**

Own Import. We offer the Seeds whole or ground (own grinding).

**CARBOLIC ACID, PALE LIQUID, 97%.**

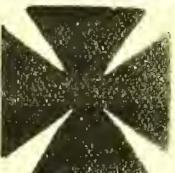
Having favourable contracts can offer to advantage in quantity.

Special Quotations on application. For lowest prices quantities should be stated.

**W. KEMP & SON, Wholesale Druggists, HORNCastle.**

 **CAMPHORTAR**

**8/- per Gross.**

 **CAMPHORTAR**

A combination of Camphor, Eucalyptus, and Coal Tar. A powerful Disinfectant, Deodoriser, Insect Destroyer, and Air Purifier.

**CAMPHORTAR**

BY THE PRINCIPAL DRUG AND SUNDRY HOUSES.

**HEBDEN'S**

**CHLORIDE OF LIME**

IN

**AIR-IGHT, ODOURLESS, WATERPROOF PACKETS**

Retains the Chlorine and keeps the Powder dry longer than any other packet.

4 oz., 8/- gross; 8 oz., 16/- gross; 16 oz., 30/- gross.

SOLD BY THE PRINCIPAL DRUG AND SUNDRY HOUSES  
Samples on application.

Manufactured only by

Albany Works,  
HALIFAX,

**W. C. HEBDEN, YORKSHIRE.**

**DUSSEK BROS. & CO.**

MANUFACTURERS OF

**SANITARY FLUID**

Of all strengths, soluble in water to any extent, forming a milky solution.

**CARBOLIC ACIDS**

Crude and pale, of all strengths.

**CARBOLIC POWDERS**

All Colours, containing 5%, 10%, 15% genuine Carbolic Acid. Packed in Casks, Bags, and Tins of all sizes.

**PATENT 'SANO' FLUID**

A superior Disinfectant for Hospital and indoor use.  
Soluble in Water.

**COAL TAR & ROSIN PRODUCTS,  
GREASES, OILS, VARNISHES, DUBBIN, AND  
PITCH of all kinds.**

**DUSSEKS WHARF, VERNEY ROAD, S.E.**

Telegrams "DUSSEK LONDON."

Telephone No. 8,239

# THE UNITED ALKALI CO., LTD. LIVERPOOL.

## CHLORINE AS A DISINFECTANT.

**"CHLOROS,"** Hypochlorite of Soda, containing 10 per cent. available Chlorine.

The presence of 1 part "Chloros" in 100 parts of Sewage will entirely destroy all germs of Cholera, Typhoid, Diphtheria, Swine Fever, Glanders, and of many other diseases.

The presence of 1 part "Chloros" in 10,000 parts of ordinary Sewage will completely remove all smell.

**"CHLOROS"** is a liquid; it yields no insoluble residue, and cannot stop up drains.

**"CHLORIDE OF LIME,"** containing 35 per cent. available Chlorine.

*The Cheapest of True Disinfectants.*

**"SANITARY CHLORIDE OF LIME,"** containing 15 per cent. available Chlorine.

**"SANITARY CHLORIDE OF LIME"** is especially prepared for Sanitary purposes.

**"SANITARY CHLORIDE OF LIME"** does not become wet or sloppy on exposure to the air, and can be handled with impunity.

*Sole Agents for "Chloros" & "Sanitary Chloride of Lime" to Chemists & Druggists in the United Kingdom,*

**Messrs. EVANS, SONS & CO., LIVERPOOL.**

### Do you require Petroleum Jelly?

If so, SNOWDON'S PETROLEUM JELLY, White or Yellow, is the best and purest obtainable. It fulfils all the requirements of the B.P., is pronounced by the Medical Profession to be unsurpassed, and DR. S. RIDEAL, D.Sc. Lond., F.I.C., F.C.S., states that the various kinds are of "uniform good quality."

### Have you seen our New Speciality in Petroleum Jelly?

The "SNOWDRIFT" (Regd.) BRAND is of a tough or stringy consistency, and is highly commended by *The Hospital*, which says of it "That its tough or stringy nature is a great improvement. We learn that already the demand for the "Snowdrift" Brand is very great. It is cheaper than ordinary vaseline, and we confidently recommend it to the Medical Profession." Samples and Prices will be sent on application.

### Send for a Sample of "Snowdrift."

Address SNOWDON, SONS & CO., Millwall, London, E.

Telegraphic Address: "SNOWDRIFT, LONDON."

Telephone: 5127.

## Harmless Antiseptic & Disinfectant Gas.

The Problem of a Harmless Antiseptic has been now solved by the introduction of

# The "Alformant"

(REGISTERED TRADE MARK),

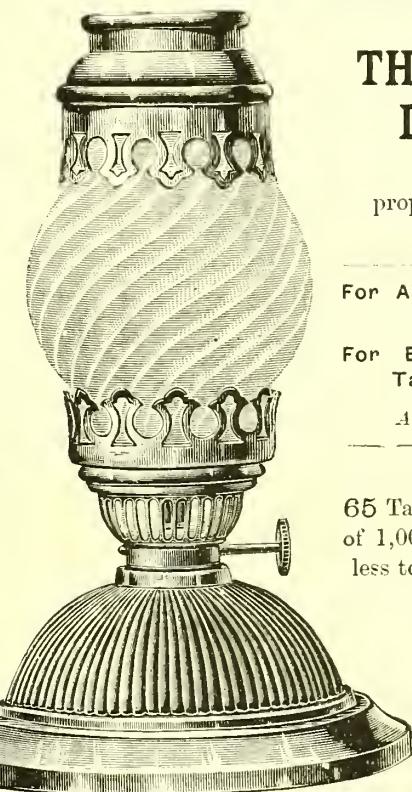
An elegant  
and ornamental Lamp capable of  
distributing from

### DRY FORMALIN TABLETS,

$\frac{1}{3}$  times by weight  
Formalin Gas, for

### AIR STERILISATION

the Sick, Bed, and Living  
Room,



R.L.P.

12/6 each.

### ANTISEPTIC TREATMENT of WOUNDS.

### DR. SCHLEICH'S GLUTOL

A fine powdered Formalin Gelatine, is the ideal antiseptic in the treatment of fresh or infected wounds. Self-apply and protective, forming a firm scab in a short space of time, needing no other antiseptic treatment. 2/6 per tin of 1 oz.

**GLUTOL SKINS**, for painful and swollen skin surfaces. 2/6 per oz.

FOR ALL PARTICULARS APPLY TO

THE FORMALIN HYGIENIC CO., Ltd., 9 & 10 ST. MARY-AT-HILL, LONDON, E.C.

Visitors to the Sanitary and Hygienic Section of the Imperial Victorian Exhibition at the Crystal Palace are invited to inspect at **Stand No. 23**.

# CARDS.

## FOR TERMS APPLY to the PUBLISHER.

**FRED<sup>K.</sup> FINK & CO.**  
10 & 11 MINCING LANE, LONDON, E.C.

SPECIALITIES : Glycerine — Gum Arabic —  
Gum Tragacanth — Pure Beeswax — Honey.

### VERMOREL'S KNAPSACK PUMPS

For Spraying Fruit Trees, Root Crops, &c.

375 FIRST PRIZES & MEDALS.

"Eclair" Spraying Pump .. price 35/-  
"Torpille" Powdering Pump .. 30/-

"VERMORITE" (Eclair Bouillie).

The Best Spraying Mixture; for instantaneouse use,  
SOLE AGENTS — CHARLES CLARK & CO.  
20 Great St. Helen's, London, E.C.



**HUGO LORENZ, 7, 8 Idol Lane, LONDON, E.C.**

CHEAPEST HOUSE FOR THE FOLLOWING:—

Pot. Bromide

Ammon. Mur.

Do. Iodide

Acid. Boracio.

Do. Permanganate

Iodoform

**S.V.R.** in 40-gallon drums, pure tinned.

**" SILVERY WHITE GUTTA PERCHA ENAMEL "**  
MARK.  
TOOTH STOPPING.



P. A. STEVENS, Surgeon-Dentist,  
72 MANSFIELD ROAD, N.W.  
SOLE PROPRIETOR AND MANUFACTURER.

Registered—No. 2745.

Special Terms to Wholesale Houses for Sheet or Sticks stamped with their own name.  
A sample box of 2d. sticks sent post free for 1s stamps. Price list and sample free.

**Inventors J. W. PINDAR & CO. Inventors**

Write for our Illustrated Catalogue of  
THE NEW ROTARY PILL MACHINES, PIPING  
PRESS AND MASS KNEADERS, COATERS,  
D.A. TINCTURE PRESSES, &c., &c.

75 NEW CHURCH ROAD, CAMBERWELL, S.E.

**CORKS! CORKS!! CORKS!!!**  
**RINGROSE & COBB, Cork Merchants,**  
129 Cambridge Road, Mile End, London, E.  
Manufacture and supply every description of Corks, Bungs, Shives, Tape,  
Bath Mats, &c., &c.  
Dispensing Corks, 6 and 8 oz., from 6d.  
Samples forwarded on application to any price st'd.

**BLAUD**  
**PILLS**

PEARL-COATED, PINK OR WHITE.  
per gross, in 100 gross  
lots, carriage paid.  
2½  
1 gross in metal-capped  
bottle, with neat and  
telling label, 3/6 per doz.;  
18/- per ½ gross. Carriage  
free.  
WAND, Factory, LEICESTER.

**PRECIPITATED CHALK**  
CRETA PROCIP.

Whitest & Purest Quality. Cheapest Sellers in the Market.

**AUG. LEVERMORE & CO., 34 Lime St., LONDON, E.C.**  
Telegrams—"LEVERMORE LONDON." A B C Code used.

**FUNNEL RINGS**  
GREEN'S PATENT  
FUNNEL RING

Are a great help in STRAINING, BOTTLING and  
FILTRATING.

They support the funnel in an upright position and prevent tipping and splitting the air escaping through the  
grooves. Made of good rubber for glass funnels and hold  
on of their own accord. For Dispensing and Filtering.

PRICE 1/- SET OF 6, OR 5/-  
AGENTS—MESSRS. TOOGOOD & SONS and JOHN THOMAS  
FALLOWFIELD.

**E. J. GREEN, Chemist, ROCHDALE.**



**CACHETS " FINE "**

(White or Coloured),  
WITH INSCRIPTIONS IN ANY DESIRED  
TINT; ALSO PLAIN OR EMBOSSED.

"Beautifully made, and the inscriptions give them a distinct  
own." — C. & D.

SOLE AGENTS—  
**COOPER & CO., 80 Gloucester Road, SOUTH KENSINGTON.**  
When ordering through Wholesalers Houses please specify Cachets.

**TO LET.**

**THE THORNTON-PICKARD**  
New Camera

THE "AMBER."  
From £5 3 6. Catalogue Free.  
THE THORNTON-PICKARD  
MFG. CO. (LTD.), Altrincham.

**RICHARD BRÜCKNER. HAMBURG,**  
COMMISSION MERCHANT.  
IMPORTER & EXPORTER of all kinds of CRUDE DIS. SPECIALITIES.—Aniseeds, Herbs, Cod-liver Oil, Ergot of Rye, English Lycopodium, Cummin Seed, Arsenic, Sugar of Milk, CHEMICALS. SPICES.  
Goods specially packed for Export to all parts.  
Sole Agents for the United Kingdom—  
MESSRS. BRUMMERSTAEDT & LUBBES, LONDON, C.

**ENGLISH (guaranteed)**  
**SANDAL WOOD OIL CAPSULES.**

**Wm. DROEGE & CO.,** Proprietors of the "HEINE"  
Registered No. 182.  
14 UPPER THAMES STREET, E.C.

**TO DENTISTS.**

High-class Dental Mechanism in Gold, Dental Alloy, Tubes, Gum Sections, Icanite, Celluloid, or their Combinations, and Repairs, by  
**A. J. FENTIMAN & CO.,** 2 UPPER EAST SMITHFIELD, LONDON, E.  
 Mechanical Dentists to the Profession at most Moderate Charges.

ESTABLISHED 1885.

A staff Skilled and Experienced Assistants under responsible Manager.  
 Post Address—A. J. FENTIMAN & CO., 2 Upper East Smithfield, London.

**Yanatas**

(REGISTERED).

THE ABSOLUTE PREVENTIVE OF SEA SICKNESS.

Wholesale Agents—DAKIN BROTHERS, 87A Leadenhall St., LONDON.

**A RARE OPPORTUNITY.**

1 lb. of **GLYCERINE & CUCUMBER, 2½ d.**

1 lb. of **ALCOLM'S Concentrated CUCUMBER PASTE** will make  
 96 oz. a beautifully white, non-separating Emulsion, simply by adding  
 aqua dest. **GUARANTEED to be prepared from CUCUMBERS.**

Send aee for sample  $\frac{1}{2}$  lb., post free 1/3.  $\frac{1}{2}$  lb. 1/3; 1 lb. 2/-; 4 lbs. 7/6.**MALCOLM & CO., 10 SMEATON STREET, HULL.**

By **HERBERT SNOW, M.D. (Lond.), M.R.C.S., Surgeon**  
 since 1876 to the Cancer Hospital.

**THE FUMOURS OF THE BREAST** which are "Dispersible" without operation. With cases, and other reprinted papers on BENIGN TUMOURS and CANCER, 2/6.

**COMENDIOUS TREATISE ON CANCER** (the only work on the whole field of malignant diseases for more than 50 years, containing numero highly important improvements in treatment), 15/-.

**J. & J. CHURCHILL, 7 CT. MARLBOROUGH STREET, W.**

Thos CHRISTY & CO. **MORSAD** **CACHETS** 3/- per 1,000.  
 In Six Sizes.  
 WHITE OR IN VARIOUS COLOURS.  
 25 Lime St. LONDON, E.C.



**E. H. THIELLAY'S (Registered 1887) MOUSQUETAIRE**  
 A bright Fixing Liquid for the special training of the MOUSTACHE. Invaluable to Medical Men, repelling infectious miasma from the respiration. In Cases, with Balsal, Rose, Horseradish, &c., at 2/-, 3/6, 5/-, 7/6, &c.  
 Most successful Novelty. 2/- sample post free 15 stamps.  
 All Wholesale Houses, or direct from  
**E. H. THIELLAY.** Parfumeur-Chimiste, Amersham Park, New Cross, LONDON. (SHOW ROOMS AT CHARING CROSS HOTEL.)

**SWITZERLAND.**

Business Houses wishing to EXTEND and PUSH in SWITZERLAND and surrounding countries can be represented by Mr. GLOGG, Wholesale and Retail Chemist, Geneva.

Address—**GRANDE PHARMACIE GEOGG, 18 CORRATERIE, GENEVA.**

Corresponding house in London—MESSRS. WILCOX & CO., Mortimer Street, W.

**VANILLA !!!**

IN SMALL OR LARGE QUANTITIES.

|                                         |    |    |    |              |
|-----------------------------------------|----|----|----|--------------|
| Fine Long Beans, 8 to 9 inches          | .. | .. | .. | 33/- per lb. |
| " medium, " 7 to 8 "                    | .. | .. | .. | 31/6 "       |
| " medium, " 4 to 6 "                    | .. | .. | .. | 25/-, 27/- " |
| Manufacturing and Distilling quality .. | .. | .. | .. | 19/-, 22/- " |

Terms—Cash or references with first order.

**A FELIX PAVIA, 136 FENCHURCH ST., LONDON.****"YORKSHIRE RELISH."****CAUTION!**

TAKE NOTICE that on the 6th day of July, 1897, the House of Lords (The Lord Chancellor, Lord Watson, Lord Herschell, Lord Shand, and Lord Davey)

**UNANIMOUSLY AFFIRMED**

the Judgments of Mr. Justice Stirling and the Court of Appeal in the Case of **POWELL** (trading as **Goodall, Backhouse & Co.**) v. THE BIRMINGHAM VINEGAR BREWERY CO., Limited, and dismissed the Appeal of the Birmingham Vinegar Brewery Co., Limited, from such Judgments with costs in favour of **Goodall, Backhouse & Co.**

Dated this 8th day of July, 1897.

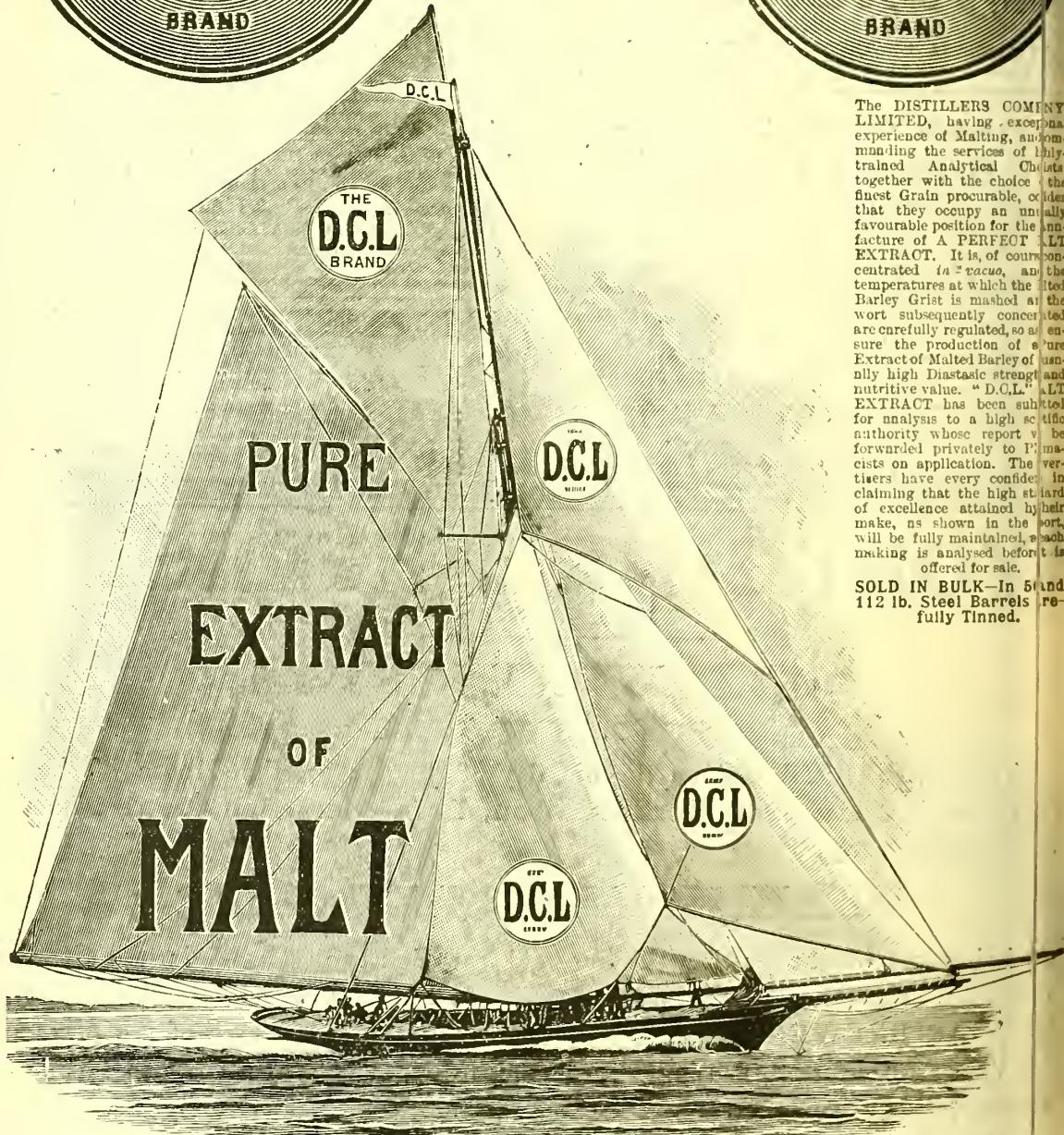
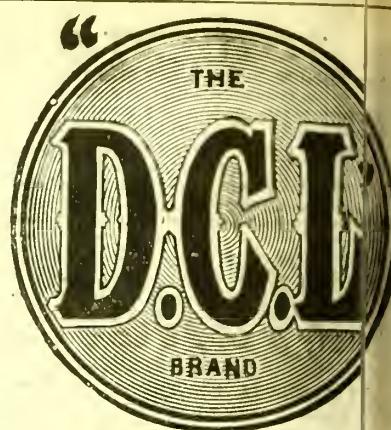
J. SEYMOUR SALAMAN,

65 and 66 CHANCERY LANE, LONDON,

Solicitor for **Messrs. Goodall, Backhouse & Co., Leeds.**



A PERFECT  
MALT  
EXTRACT



The DISTILLERS COMPANY, LIMITED, having exceptional experience of Malting, and commanding the services of highly-trained Analytical Chemists, together with the choice of the finest Grain procurable, consider that they occupy an unusually favourable position for the manufacture of A PERFECT MALT EXTRACT. It is, of course, concentrated *in vacuo*, and the temperatures at which the Malted Barley Grist is mashed, and the wort subsequently concentrated are carefully regulated, so as to ensure the production of a pure Extract of Malted Barley of unusually high Diastatic strength and nutritive value. "D.C.L." MALT EXTRACT has been submitted for analysis to a high scientific authority whose report will be forwarded privately to Physicians on application. The vertuaries have every confidence in claiming that the high standard of excellence attained by their make, as shown in the port, will be fully maintained, each making is analysed before it is offered for sale.

SOLD IN BULK—In 5 and 112 lb. Steel Barrels respectively Tinned.

SAILING AHEAD OF ALL COMPETITORS.

Sole Manufacturers—THE DISTILLERS CO., LTD., EDINBURGH.

Three Minutes' Walk from Aldersgate St. Station.

REGISTERED



# ILLUSTRATED PRICE LIST.

Revised July, 1897.

Sent Post Free on application with Business Card.

**Druggists' Sundries.**  
**Packed Drugs & Perfumery.**  
**Patent Medicines.**

**NO TRAVELLERS.**Their Expenses  
given to Buyers.**CARRIAGE PAID**  
See Terms.**MAY, ROBERTS & CO., LONDON**

Telegraphic Address: "FEEDING BOTTLES LONDON."

Telephone No. 889, Holborn Exchange.



## MAY, ROBERTS & CO.'S SANOPENNIES

(SANITARY TABLETS, Wire Loop for hanging up).

A pleasant, Powerful, and Continuous Disinfectant.

Per gross, 5/-, in Wood Boxes. Smaller quantities, 5/6.



ILLUSTRATION HALF ACTUAL SIZE.

## SELTZOGENES.

FÈVRE'S.

2 pt. 3 pt. 5 pt. 8 pt.

Genuine wax-covered, each ... 6/9 8/3 12/6 20/3

2 pt. 3 pt. 5 pt. 8 pt.

Genuine wire-covered, each ... 6/6 7/9 11/9 18/9

## SELTZOGENES.

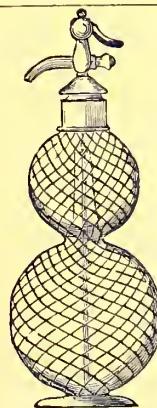
SYSTÈME FÈVRE.

Made expressly for M., R. &amp; Co.

3 pints. 5 pints.

Wire-covered, each ... ... 7/- ... 10/-

Each guaranteed.



## AMERICAN LIQUID PUTZ.



## METAL POLISH

TRADE MARK AND LABEL REGISTERED.

Small Cans ... ... per doz. 4/6

Half-pint Cans ... ... " 8/-

Gallon Cans ... ... " 100/-

## Prince's Polishing Powder.



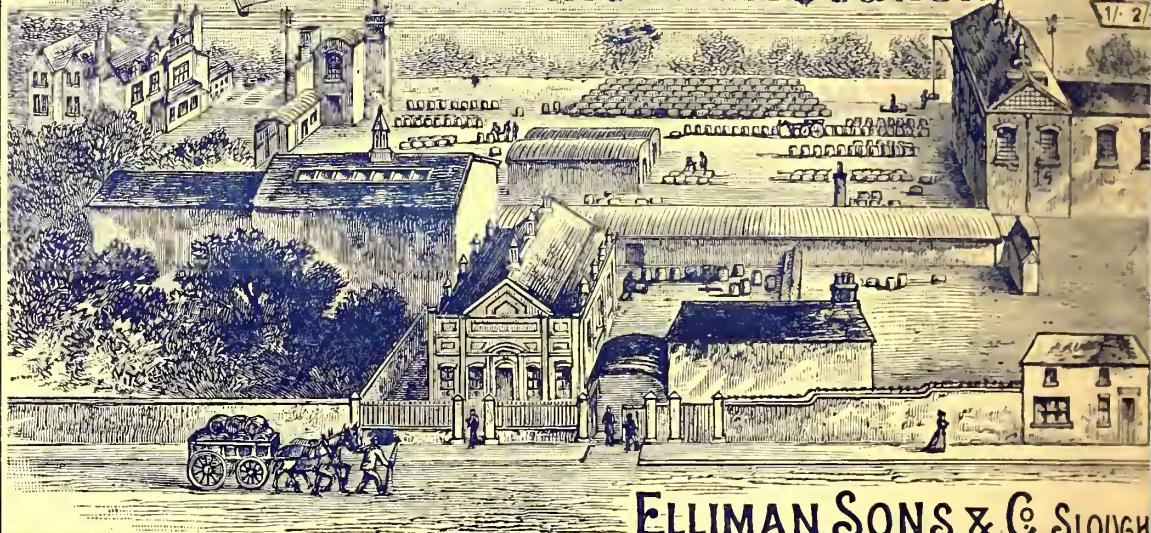
6d. Boxes, 3/6 doz.; 1/- Boxes, 7/-.

All the above subject to the usual terms and conditions.

**MAY. ROBERTS & CO., LONDON.**

For Cleaning Brass, Iron, &c.  
1d. tin 1/- gross. 3d. tins, 13/- gross.

# YEAR BY YEAR 1847 TO 1897 INCREASING DEMAND UNIVERSAL 8½° ETC. FOR HUMAN USE FOR ELLIMAN'S EMBROCATION ROYAL FOR ANIMALS 1/2 6 1/2 6



ELLIMAN SONS & CO SLOUGH

## Cadbury's Cocoa

ABSOLUTELY PURE  
therefore BET.

Cadbury's is "The Typical Cocoa of English Manufacture, Absolutely Pure."—*The Analyst*.  
NO CHEMICALS USED IN CADBURY'S AS IN THE SO-CALLED PURE FOREIGN COCOAS.

SAFE  
TEETHING.

DO NOT LET YOUR CHILD DIE!  
Fennings' Children's Powders Prevent Convulsions; are Cooling and Soothing.

## FENNINGS' CHILDREN'S POWDERS

For Children Cutting their Teeth, to Prevent Convulsions.

Sold in Stamped Boxes, at 1s. 1½d. and 2s. 9d. (great saving), with full Directions.

Do not contain Calomel, Opium, Morphia, nor anything injurious to a tender babe.

Chemists, by applying to the Patent Medicine Houses and Wholesale Chemists, can obtain, free of any charge  
supply of "FENNINGS' EVERY MOTHER'S BOOK" for Counter distribution.

TEETHING.

As—

FILTERING MEDIUM,  
CLARIFYING AGENT,  
DENTIFRICE,  
PLATE POWDER, &c.

For the Preparation of—

VIOLET POWDERS,  
NURSERY POWDERS,  
DUSTING POWDERS,  
ANTISEPTIC POWDERS, &c.

## "DIMATOS"

"Dimatos" is the name which has been given to a newly-discovered Infusorial Earth, which, on account of appearance and properties, surpasses in value all other varieties of such Earths hitherto met with in commerce.

"Differs in every respect from ordinary Kieselguhr—perfectly white in the natural state—the purest form of infusorial earth we have seen."—*Chemist & Druggist*.

"Contains 98 per cent. pure silica—presents a remarkable contrast to other infusorial earths, such as Kieselguhr."—*Pharmaceutical Journal*.

SAMPLE FREE ON APPLICATION.

PRICES.

|                       |          |               |                           |          |              |
|-----------------------|----------|---------------|---------------------------|----------|--------------|
| In 1-cwt. Canvas Bags | .. .. .. | 70/- per cwt. | In 14-lb. Canvas Bags     | .. .. .. | 77 6 per wt. |
| " $\frac{1}{2}$ " "   | .. .. .. | 72 6 "        | " 7-lb. " "               | .. .. .. | 80 -         |
| " $\frac{1}{4}$ " "   | .. .. .. | 75/-          | Bags Free. Carriage Paid. |          |              |

Smaller Quantities 9d. per lb.

SOLE CONSIGNNEES THROUGHOUT THE WORLD—

**SOUTHALL BROS. & BARCLAY, MANUFACTURING CHEMISTS, BIRMINGHAM.**



